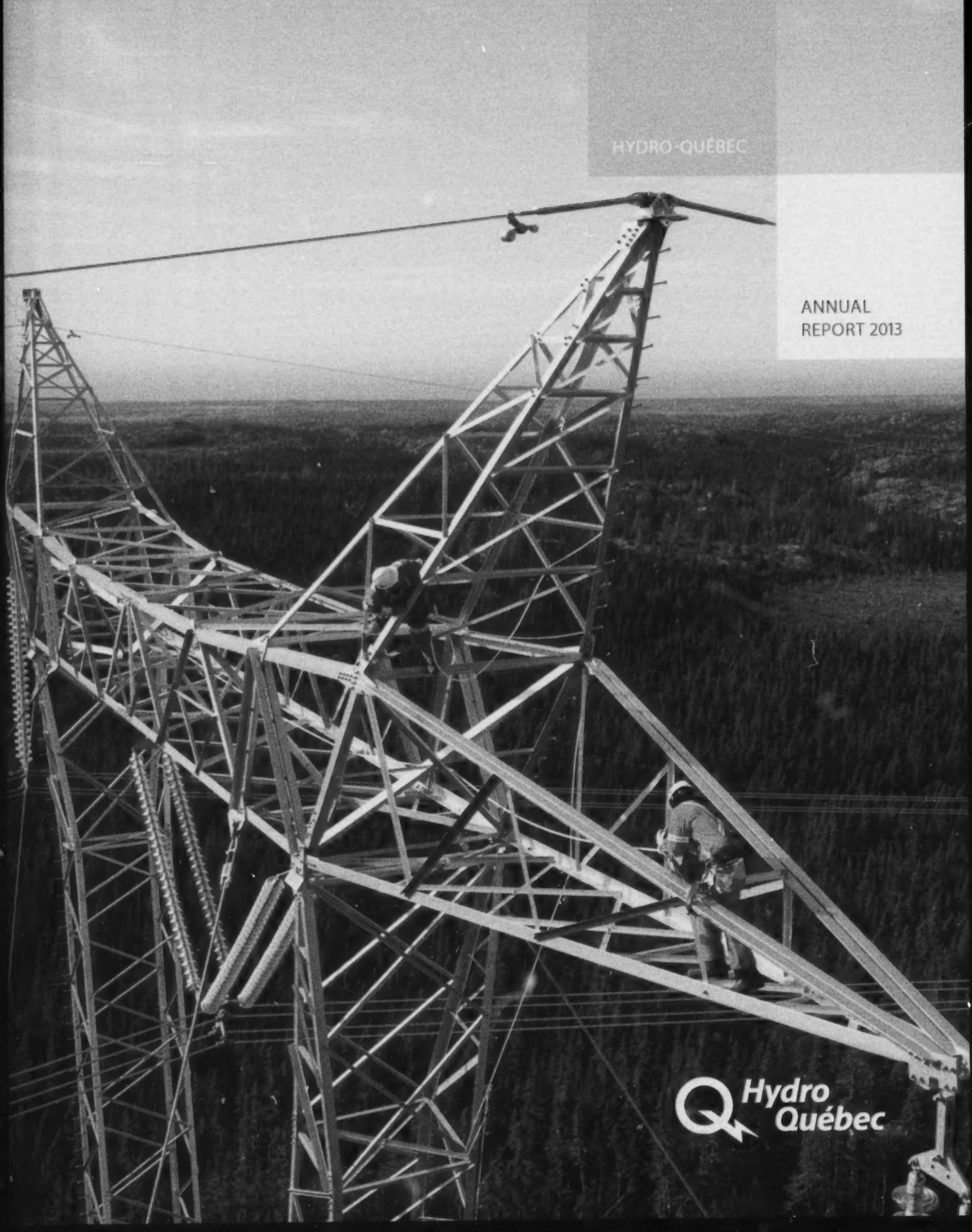
HYDRO-QUÉBEC
ANNUAL
REPORT 2013
Hydro
Québec

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The information contained herein takes into account any significant event that occurred on or before February 21, 2014.

Hydro-Québec generates, transmits and distributes electricity. Its sole shareholder is the Québec government. While using hydroelectric generation, it supports the development of other technologies—such as wind energy and biomass—through purchases from independent power producers. It also conducts R&D in energy-related fields, including energy efficiency.

The company has four divisions:

HYDRO-QUÉBEC PRODUCTION
generates power for the Québec market and sells electricity on wholesale markets.

HYDRO-QUÉBEC TRANSÉNERGIE
operates the most extensive transmission system in North America for the benefit of customers inside and outside Québec.

HYDRO-QUÉBEC DISTRIBUTION
provides Québécers with a reliable supply of electricity. To meet needs beyond the annual heritage pool, which Hydro-Québec Production is obligated to supply, it mainly uses a tendering process. The division also encourages its customers to make efficient use of electricity.

HYDRO-QUÉBEC ÉQUIPEMENT ET SERVICES PARTAGÉS
and Société d'énergie de la Baie James (SEBJ), a subsidiary of Hydro-Québec, design, build and refurbish generating and transmission facilities, mainly for Hydro-Québec Production and Hydro-Québec TransÉnergie.

On the cover

Line checkers Alain Compartino and Olivier Houle inspect a new guyed-V tower on the Romaine-2–Arnaud transmission line.

Opposite

Installation of a distributor 3.8 metres high and weighing 115 t. It will be moved a distance of nearly 20 m before it is lowered into a turbine pit at Romaine-2 generating station.

HYDRO-QUÉBEC

HYDRO-QUÉBEC AT A GLANCE

Note: Certain comparative figures have been reclassified to conform to the presentation adopted in the current year.

	2013	2012
Operations and Dividend ($M)		
Revenue	**12,881**	12,136
Operating result	**5,371**	5,177
Result from continuing operations	**2,938**	2,736
Result from discontinued operations[a]	**4**	(1,876)
Net result	**2,942**	860
Dividend	**2,207**	645
Balance Sheets ($M)		
Total assets	**73,110**	70,508
Property, plant and equipment	**59,077**	57,174
Long-term debt, including current portion and perpetual debt	**44,477**	43,524
Equity	**19,394**	18,982
Cash Flows ($M)		
Operating activities	**5,017**	4,768
Investing activities	**(5,386)**	(3,321)
Financing activities	**(127)**	(639)
Cash and cash equivalents	**1,695**	2,183
Financial Ratios		
Interest coverage	**2.09**	2.02
Return on equity from continuing operations (%)	**14.6**	14.6
Profit margin from continuing operations (%)	**22.8**	22.5
Capitalization (%)	**30.5**	30.6
Self-financing (%)	**68.3**	55.4

a) The discontinued operations are related to the 2012 decision to abandon the project to refurbish Gentilly-2 nuclear generating station and to terminate nuclear power operations.

	2013	2012	2011	2010	2009
Customers and Sales					
Total customer accounts in Québec	**4,141,990**	4,096,267	4,048,708	4,000,168	3,948,155
Electricity sales in Québec (TWh)	**173.3**	168.4	170.0	169.5	165.3
Electricity sales outside Québec (TWh)	**32.2**	31.8	26.8	23.3	23.4
Salaried Employees as at December 31[a]	**19,692**	21,032	21,977	22,590	22,611
Facilities					
Number of hydroelectric generating stations	**61**	60	60	60	60
Total installed capacity (MW)	**36,068**[b]	35,829	36,971	36,671	36,813
Peak power demand in Québec (MW)[c]	**39,031**	38,797	35,481	37,717	34,659
Lines (overhead and underground)					
Transmission (km)	**33,885**[d]	33,911	33,902	33,725	33,516
Distribution (km)[e]	**114,843**	114,649	113,525	112,089	111,205
Number of substations	**527**[f]	527	525	525	526
Power Generation and Purchases					
Renewables (GWh)[g]	**218,081**	208,572	200,608	192,321	196,633
All generating sources (GWh)	**219,367**	213,284	207,537	203,842	203,181
Proportion of renewables (%)	**99**	98	97	94	97

a) Excluding employees of subsidiaries and joint ventures.

b) In addition to the generating capacity of its own facilities, Hydro-Québec has access to almost all the output from Churchill Falls generating station (5,428 MW) under a contract with Churchill Falls (Labrador) Corporation Limited that will remain in effect until 2041. It also purchases all the output from 23 wind farms (2,399 MW) and 4 small hydropower plants (48 MW) and almost all the output from 11 biomass cogeneration facilities (205 MW) operated by independent power producers. Moreover, 1,146 MW are available under long-term contracts with other suppliers.

c) The 2013 figure was valid on February 21, 2014. The values indicated correspond to the needs for the winter beginning in December, including interruptible power. The peak for a given period is based on measurements at fixed intervals. The 2013–2014 winter peak was 39,031 MW and occurred on January 22, 2014, at 8:00 a.m., after the system load momentarily reached 39,240 MW at 7:26 a.m.

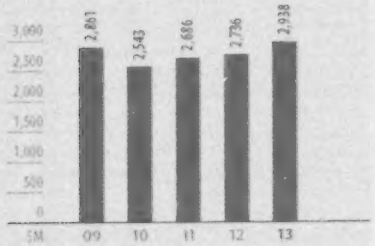
d) 33,613 km of lines operated by Hydro-Québec TransÉnergie and 272 km by Hydro-Québec Distribution.

e) These figures include off-grid systems but exclude private systems, lines under construction and 44-kV lines (transmission).

f) 516 substations operated by Hydro-Québec TransÉnergie and 11 by Hydro-Québec Distribution.

g) These figures include renewable energy certificates related to the output of Hydro-Québec Production's generating stations (142 GWh in 2013 and 24 GWh in 2012) that were sold to third parties; they exclude wind energy, hydropower and biogas purchases for which certificates were sold to third parties.

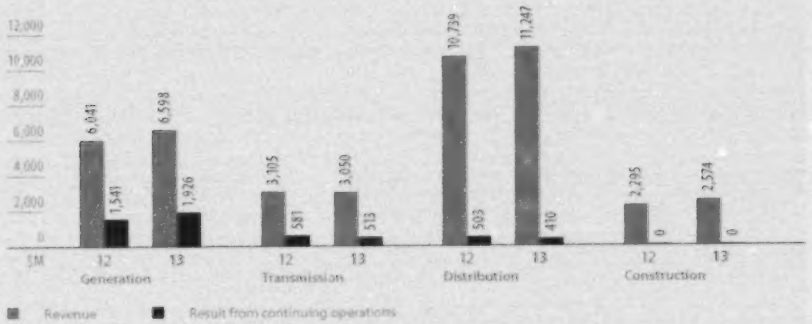
RESULT FROM CONTINUING OPERATIONS



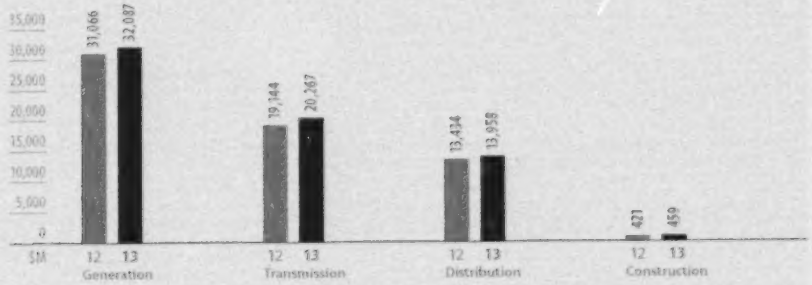
The result from continuing operations totaled $2,938 million, a $202-million increase over 2012 and the best result to date posted by Hydro-Québec for its continuing operations.

This favorable result is due to an increase in electricity sales and strict management of current operating expenses. Export volume increased somewhat thanks to a strong performance by the company's hydroelectric generating facilities and transmission system as well as the skillful deployment of sales programs. The company also benefited from slightly higher market prices, especially at year end, due to the cold spell that gripped North America. Revenue from electricity sales in Québec also increased, mainly on account of colder temperatures in 2013 than in 2012 and of higher demand. Furthermore, as a result of targeted initiatives at every level of the organization, the company was again able to absorb the increase in costs related to inflation, salary indexing and growth in operating assets, and still reduce current operating expenses. In this regard, it is worth noting that, in keeping with its commitments, Hydro-Québec reduced its salaried workforce by 2,285 employees over the 2012–2013 period, ending 2013 with 19,692 people on the payroll.

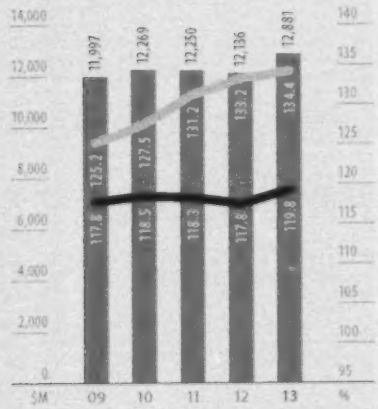
REVENUE AND RESULT FROM CONTINUING OPERATIONS BY SEGMENT



TOTAL ASSETS BY SEGMENT



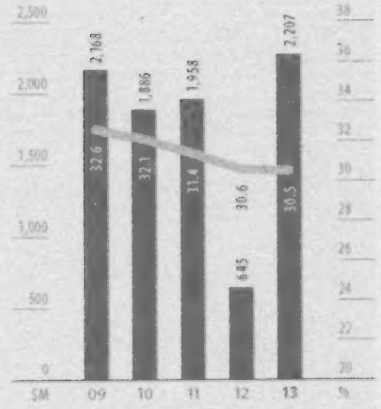
REVENUE, AVERAGE RATE ADJUSTMENT INDEX AND CONSUMER PRICE INDEX



- Revenue
- Average rate adjustment index (1998 = 100)
- Consumer Price Index (1998 = 100)

Revenue totaled $12,881 million, or $745 million more than the $12,136 million posted in 2012. Revenue from electricity sales amounted to $12,610 million, compared to $11,636 million the previous year; it increased by $643 million in Québec and by $331 million on markets outside Québec. Other revenue totaled $271 million, compared to $500 million in 2012.

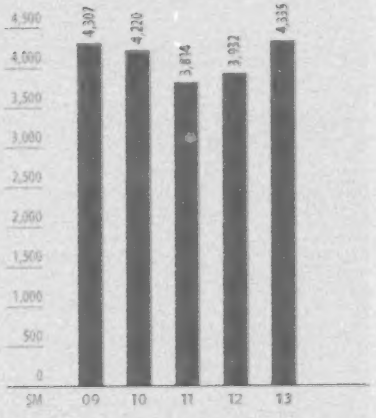
DIVIDEND AND CAPITALIZATION



- Dividend
- Capitalization

Under the *Hydro-Québec Act*, the dividend cannot exceed the distributable surplus, equal to 75% of the net result. The dividend for 2013 amounts to $2,207 million.

INVESTMENTS IN PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS[a]



a) Including the Energy Efficiency Plan.

Cash flows from operating activities totaled $5.0 billion. They allowed the company, among other things, to pay the 2012 dividend of $645 million and to finance a large portion of its investment program, which reached $4.3 billion.

Erecting a tubular steel pole on the new 315-kV tap line for Bélanger substation.

Significant Results

Pierre Karl Péladeau

Once again this year, Hydro-Québec achieved a noteworthy performance, with a record result from continuing operations and the completion—under budget—of the Eastmain-1-A/Sarcelle/Rupert project. Furthermore, to increase productivity through advanced technologies, we proceeded with the rollout of next-generation meters, primarily in the Montréal region.

These accomplishments are clear evidence of careful management and continued efficiency. They also reflect the dynamic leadership of a seasoned management team and the support of an experienced workforce. Together, these strengths help preserve our energy heritage and ensure a sustainable future, thanks in particular to the fact that we use water to generate more than 99% of our output.

Year after year, Hydro-Québec's investments, operating activities and innovation initiatives make it a leading economic player in Québec. The company contributes to the province's collective wealth and the prosperity of the regions that host its many generation and transmission projects.

In 2013, the Board of Directors—which, in addition to the Chairman and the President and Chief Executive Officer, is made up of members from diverse backgrounds—approved numerous capital projects in generation, transmission and distribution. Throughout the year, the Board kept a close eye on the progress of the company's investment program, which was on the order of $4 billion in 2013.

With regard to regulated activities, aside from capital projects, the Board approved the filing of the Distributor's Electricity Supply Plan 2014–2023 with the Régie de l'énergie, as well as an application for review of the rate of return and approval of an earnings sharing mechanism for the treatment of related variances.

It also closely monitored the progress of construction work at the Romaine complex, rollout of next-generation meters and initiatives related to ground transportation electrification, which holds great promise for the future.

I want to express my gratitude to all the directors for their dedicated participation in the Board's activities, and in particular to Gaston Blackburn and Richard Savard, who left the Board during the year. Let me also take this opportunity to welcome Christyne Tremblay, who joined the Board this year. Finally, I congratulate the members of the management team and thank all the employees for the essential role they play in Hydro-Québec's success.

Pierre Karl Péladeau

Chairman of the Board

Thierry Vandal

A Successful Year

In 2013, Hydro-Québec posted a result from continuing operations of $2.94 billion, a new record for the company. We are very proud of this increase in our profitability, which is attributable to growth in our export revenues as well as cost reductions at every level of the organization. This result speaks well for the expertise, professionalism and determination of Hydro-Québec's entire workforce.

In Québec, revenue from electricity sales was up, mainly because of a return to near-normal winter temperatures in 2013 after a mild winter in 2012, and also due to higher demand.

The solid performance of our generating facilities and transmission grid, attractive cost of our hydropower output and skillful deployment of our sales programs also enabled us to increase the contribution of our markets outside Québec. Our exports benefited from slightly higher prices in 2013, especially at the end of the year, when very cold weather swept across the continent.

HIGHLIGHTS

Three events in particular stand out as highlights of 2013. In December, we commissioned the third bulb-type generating unit at Sarcelle powerhouse (150 MW), thereby completing the Eastmain-1-A/Sarcelle/Rupert complex (918 MW), which was begun in 2007. Considered one of the largest construction projects in Canada—with as many as 3,700 workers on the job at its peak—this complex was built at a cost of less than $4.7 billion, under its original budget of $5.0 billion, and is a prime example of Hydro-Québec's finely honed skill in managing major infrastructure projects.

Rollout of an advanced metering infrastructure, which started in February 2013, passed a major milestone with the installation of the millionth next-generation meter. More than 66% of the 1.7 million meters in phase one of the project, scheduled to end in June 2014, are already serving customers in the greater Montréal area. Ultimately, we plan to deploy 3.75 million next-generation meters throughout the province. In a determined effort to improve operating efficiency, Hydro-Québec is gradually establishing a smart grid that will allow the company to reduce operating costs, offer new services and optimize management of the distribution system.

In the area of labor relations, it is noteworthy that seven of Hydro-Québec's eight unions, representing 85.7% of its unionized employees, signed new collective agreements in December following several months of negotiations. The resulting stability will enable us to maintain solid labor relations and achieve Hydro-Québec's objectives, for the benefit of the shareholder and our approximately 4.1 million customers.

STEADY PROGRESS ON GENERATION PROJECTS

While the completion of the Eastmain-1-A/Sarcelle/Rupert project was one highlight of 2013, another was the continuing progress of work at the Romaine complex, a vast project estimated at $6.5 billion.

On the Romaine-2 jobsite (640 MW), construction of the dam and retaining structures was finished in November. Assembly of the two generating units is proceeding according to plan, with commissioning slated for 2014. At Romaine-1 (270 MW), concreting on the generating station got under way, while at Romaine-3 (395 MW), excavation and concreting began on the temporary diversion tunnel. Additionally, the Route de la Romaine, also built by Hydro-Québec, now runs a total of about 130 km and will reach the Romaine-4 jobsite in 2014.

In the Baie-James region, refurbishment of the units at Robert-Bourassa generating station—the world's largest underground hydroelectric facility—will take place over a number of years.

AN EVOLVING TRANSMISSION SYSTEM

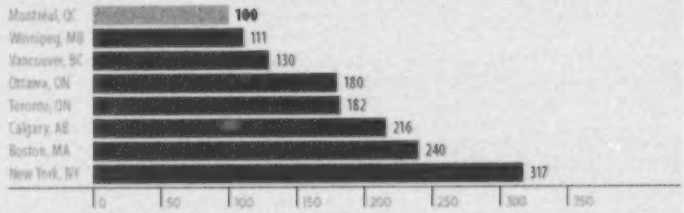
In 2013, our investments in transmission rose to a record $1.9 billion, including $917 million devoted to maintaining and improving the grid, and replacing some of its assets. These investments are intended to ensure compliance with North American standards and regulatory requirements, provide customers with high-quality service and meet growing transmission needs on the grid arising from increased domestic power generation and consumption.

Hydro-Québec had more than 1,300 transmission projects under way throughout Québec in 2013. A number of these have been completed and the new facilities added to the assets we operate. Other projects will continue in 2014 and subsequent years. These include construction of the 735-kV line that will link Romaine-2 generating station to Arnaud substation, addition of a 735-kV section to Bout-de-l'Île substation—making it the first facility to operate at that voltage on the island of Montréal—and construction of Duchesnay substation to meet demand growth in the northwest portion of metropolitan Québec.

CONTINUED INVESTMENTS IN DISTRIBUTION

Hydro-Québec invested close to $800 million in electric power distribution throughout Québec in 2013, more than half of which went to maintaining or improving service reliability and quality. Investments in distribution over the last decade total $7 billion, including $2.8 billion for meeting increased demand and $1.3 billion for asset sustainment. In addition, our vegetation control operations, such as tree pruning next to the distribution grid, have grown substantially over time. In 2013, this activity accounted for about $66 million in spending.

COMPARATIVE INDEX OF ELECTRICITY PRICES AT APRIL 1, 2013 – RESIDENTIAL CUSTOMERS[a]



a) Monthly bill (before taxes) for a consumption of 1,000 kWh.

COMBINED EFFORTS

The remarkable results we achieved in 2013, which benefit Québec as a whole, were made possible by the ongoing support of the women and men who work for Hydro-Québec or its partners. I am deeply grateful to them all.

A NOTABLE CONTRIBUTION

Finally, I would like to salute outgoing Chairman Michael L. Turcotte, who left the Board of Directors after more than seven years of distinguished service, and welcome his successor Pierre Karl Péladeau, who brings us vast experience in business and corporate governance. I thank all the Board members for their contribution to Hydro-Québec's many accomplishments.

Thierry Vandal

President and Chief Executive Officer

HYDRO-QUÉBEC PRODUCTION

Richard Cacchione
President,
Hydro-Québec Production

Installing a turbine runner at Beauharnois generating station. This facility's strategic location enables it to serve the native load and the Ontario and New York power systems simultaneously if need be.

2013 IN FIGURES

Revenue	**$6.6 billion**
Result from continuing operations	**$1,926 million**
Net result	**$1,930 million**
Customers (% of revenue from electricity sales)	
Hydro-Québec Distribution	**76%**
Other	**24%**
Sales volume	
Hydro-Québec Distribution	**167.2 TWh**
Other	**32.9 TWh**
Property, plant and equipment as at December 31 (including work in progress)	**$30.2 billion**
Investments in property, plant and equipment and intangible assets	**$1.4 billion**

OUR MISSION

Hydro-Québec Production generates power to supply the domestic market and sells power on wholesale markets.

OUR FACILITIES

Our generating fleet comprises 60 hydroelectric generating stations and 2 thermal generating stations, representing assets worth $26.6 billion and installed capacity of 35.9 GW. Our hydroelectric fleet also includes 26 large reservoirs with a combined storage capacity of 175 TWh, as well as 656 dams and 97 control structures.

OUR ACTIVITIES

We supply Hydro-Québec Distribution with an annual maximum volume of 165 TWh of heritage pool electricity. Above that volume, we sell our output in Québec, mainly in response to tender calls by Hydro-Québec Distribution, and outside Québec, on wholesale electricity markets.

Clean, Renewable Energy

In 2013, Hydro-Québec Production commissioned Sarcelle, a powerhouse equipped with bulb-type generating units. Optimal for operating a low head, this technology is a Québec first. At the Romaine jobsites, construction proceeded at a steady pace. This $6.5-billion project calls for the construction of four generating stations on the Rivière Romaine, north of Havre-Saint-Pierre, with a total capacity of 1,550 MW and an annual output of 8.0 TWh of clean, renewable energy. At the same time, we carried out various refurbishments to optimize our facilities and ensure the long-term operability of our hydroelectric generating fleet.

Efforts to reduce greenhouse gas emissions have led to a growing demand for renewables. New England, for example, is trying to increase its hydropower imports from Québec. Vermont has already recognized the renewable nature of this energy source, and Connecticut has made legislative changes facilitating investment in hydropower.

Hydro-Québec Production posted an excellent performance in 2013, with a result of $1,926 million from continuing operations, compared to $1,541 million in 2012. These results reflect the skill and commitment of our entire workforce. In addition, we paid $669 million in water-power royalties earmarked for the Generations Fund. Hydro-Québec has paid $3.8 billion to this fund since its creation in 2007—a significant contribution to the Québec economy.

HYDROPOWER DEVELOPMENT, A PRIORITY

In line with the company's sustainability strategy, Hydro-Québec Production favors hydropower development. Our infrastructure projects must meet three fundamental criteria in order to proceed: they must be profitable, environmentally acceptable and favorably received by the communities concerned. Several hydroelectric generating facilities with a total capacity of 3,614 MW have been commissioned over the past 11 years.

■ In the Baie-James region, the three bulb-type units at Sarcelle powerhouse were commissioned in 2013, the last one at the end of the year. The Eastmain-1-A/Sarcelle/Rupert project has an installed capacity of 918 MW for an annual output of 8.7 TWh, which includes significant additional output (5.3 TWh) as a result of diverting part of the Rupert's flow to Robert-Bourassa, La Grande-2-A and La Grande-1 generating stations.

The Romaine complex project is one of the largest construction projects in Canada.

■ At the Romaine jobsites, in the Minganie region, the dam and retaining structures for Romaine-2 were completed in November. This will allow us to take advantage of the 2014 spring flood for reservoir impoundment. Generating unit assembly is proceeding on schedule for commissioning in 2014. As for the Romaine-1 development, which will be operational in 2016, we finished excavating for the main structures and began concreting on the generating station and other facilities. At the Romaine-3 jobsite, excavation and concreting for the temporary diversion tunnel got under way. As well, the main access road reached kilometre 130, on the way to the Romaine-4 jobsite.

Technicians Robert Pellerin and Yanick Allard discuss the restoration of the old Saint-Narcisse dam with environment advisor Robert Lanouette. The restoration of this dam, which is listed in the Registre du patrimoine culturel (cultural heritage register), is a Hydro-Québec first.

1

2

The 62 generating stations operated by Hydro-Québec Production have a total installed capacity of 35.9 GW.

LONG-TERM OPERABILITY AND OPTIMIZATION OF FACILITIES

One of Hydro-Québec Production's main priorities is the long-term operability and optimization of its facilities, as this is imperative for ensuring a secure and reliable supply of electricity for the future. In 2013, $416 million was invested in generating station refurbishment and refitting. Work planning must be adapted to the diversity of our hydropower fleet, which includes both run-of-river and reservoir power plants. Highly specialized teams are continually evaluating facility condition and performance in order to determine the type and urgency of work that may be required.

- In the Baie-James region, we are completing the overhaul of one of the units at Robert-Bourassa generating station. Refurbishment work on the rest of the units will continue over a number of years. This reservoir generating station, located underground, is the most powerful facility in our fleet. During the first phase of the refurbishment, we will be replacing the speed governors, the excitation and control systems, and some of the turbine runners.
- In the Manicouagan region, the overhaul of a generating unit at the Jean-Lesage facility (formerly Manic-2) was completed as planned. We began refurbishing a second unit to ensure its long-term operability and add about 30 MW to its capacity. We also finalized the overhaul of auxiliary equipment at Manic-1 generating station. Finally, major work was completed on one of the stators at René-Lévesque generating station (formerly Manic-3).
- In the Montérégie region, the overhaul of six units at Beauharnois generating station is proceeding on schedule. This large-scale project will prolong the station's service life and increase its output. In 2013, a major stage in the overhaul was the replacement of the control building. Equipped with 36 generating units stretching for nearly a kilometre, Beauharnois is one of Hydro-Québec's most powerful and impressive facilities.
- In the Outaouais region, a number of projects are being carried out at Paugan generating station to ensure its long-term operability. We also began a project to replace the gate lifting mechanisms on the Chelsea dam spillway.
- In Abitibi-Témiscamingue, the first of the four units at both Rapide-2 and Rapide-7 generating stations were refitted in 2013. Replacement of the turbine runners and some mechanical components should yield about 12 MW of additional capacity at each facility.
- The project to expand and upgrade our network of hydrometeorological monitoring stations is progressing at a steady pace. This network, which covers the entire province, collects data (on precipitation, snow conditions, temperature, etc.) that is critical for planning generation and maintenance, managing facilities in real time, and designing new equipment. Under this 10-year project, new stations will be added and obsolete ones will be replaced.
- In the Mauricie region, work continued at Gouin and La Tuque dams, mainly involving the refurbishment of spillways, gates and lifting mechanisms.
- After the shutdown of Gentilly-2 nuclear generating station in December 2012, preparations for dormancy have begun. An important step was completed in September 2013, as employees finished removing the reactor fuel (natural uranium). Draining of the heavy water from the cooling loop will be carried out according to the decommissioning plan.

CREATING VALUE FROM QUÉBEC POWER

The generating fleet is managed with two major goals in mind: the security of Québec's electricity supply and the profitability of operations. Because reservoir generating stations have large storage capacity and can be started up in a matter of minutes, we can adjust output based on domestic demand and export market conditions.

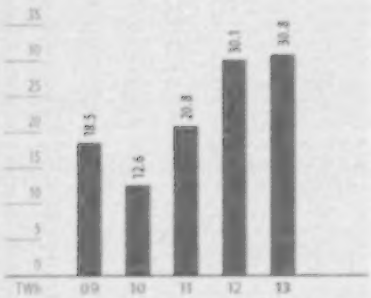
- Electricity sales to Hydro-Québec Distribution totaled 167.2 TWh in 2013, compared to 165.7 TWh in 2012.
- Net exports generated revenue of $1,353 million for 30.8 TWh. Careful planning and sound operation of our generating facilities allowed us to achieve a high volume of electricity sales outside Québec for a second year in a row. The extensive production of shale gas close to our export markets continues to exert downward pressure on electricity prices. However, the company benefited from a slight increase in market prices, especially toward the end of the year, as a result of the cold spell that gripped North America.

1 Maintenance work on a unit at Carillon generating station, which celebrated its 50th birthday in 2013.

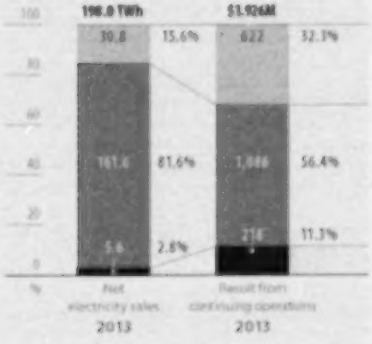
2 Mechanic François Bourgeois examines the speed governor of a unit at Jean-Lesage generating station (formerly Manic-2).

3 Traders and analysts at work on Hydro-Québec Production's energy trading floor.

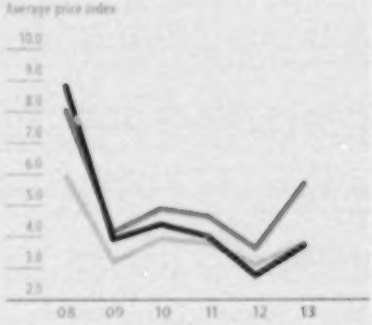
NET ELECTRICITY EXPORTS BY HYDRO-QUÉBEC PRODUCTION



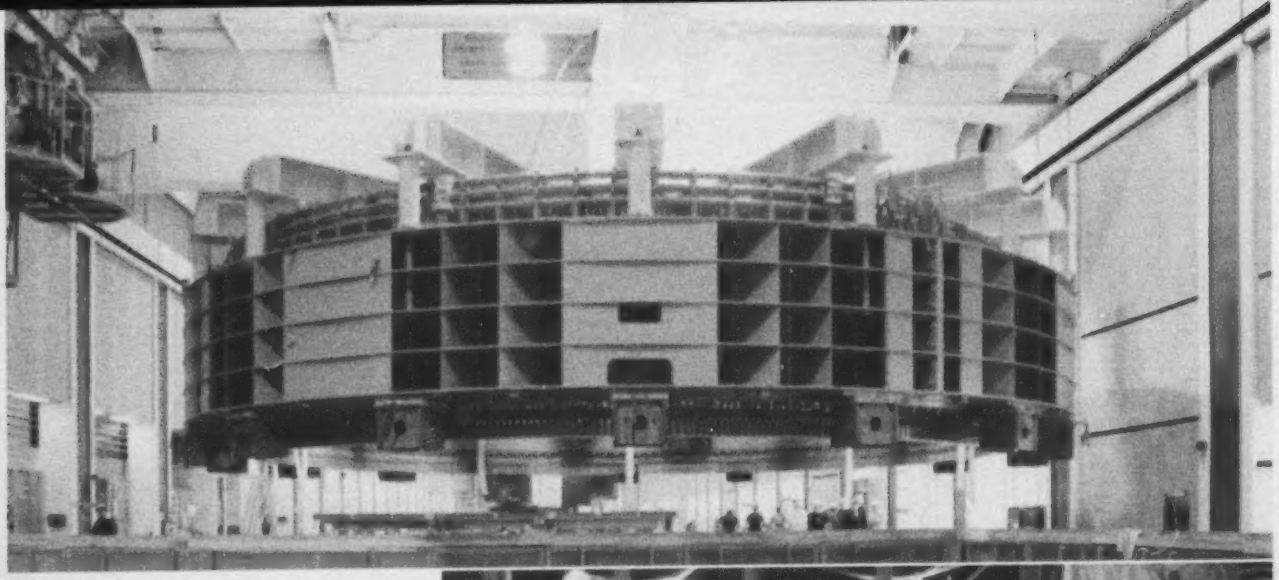
NET ELECTRICITY SALES AND RESULT FROM CONTINUING OPERATIONS OF HYDRO-QUÉBEC PRODUCTION, BY MARKET



TRENDS IN ENERGY PRICES ON HYDRO-QUÉBEC'S EXTERNAL MARKETS



After reaching a historic peak in 2008, natural gas and electricity prices in northeastern North America dropped sharply in 2009, reaching a low point in 2012, followed by a slight increase in 2013.



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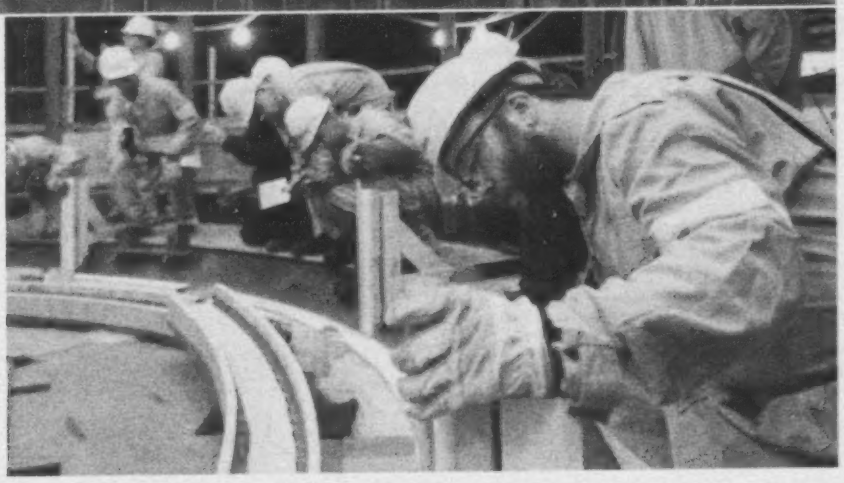

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In 2013, the average cost of a kilowatthour was 1.98¢. This corresponds to the sum of our generating, procurement and sales costs divided by the net sales volume.

We use water to generate more than 99% of our output.

■ Hydro-Québec Production is continuing talks regarding participation in projects to build transmission lines between Québec and certain states in the U.S. Northeast. These interconnections would enable us to increase our exports to those markets.

■ We operate our facilities in such a way as to maintain a sufficient energy reserve at all times to offset a potential runoff deficit equivalent to 64 TWh over two consecutive years and 98 TWh over four consecutive years. We also keep a capacity reserve approximately 8% higher than our contractual commitments, in accordance with the industry's reliability criteria. As at December 31, 2013, reservoir storage stood at 96.1 TWh.

INNOVATING TO MAXIMIZE OUTPUT

Through its technological innovation efforts, Hydro-Québec Production seeks to increase the efficiency, availability and useful life of its assets. Conducted in collaboration with the company's research institute, the Institut de recherche d'Hydro-Québec (IREQ), as well as industry partners and university researchers, the work performed in 2013 was part of a portfolio of 24 projects. The total value of those projects, technology watch activities, technical support and expertise-related mandates amounted to $19 million.

In 2013, we worked on projects aimed at optimizing generating facility operation and maintenance.

■ New dam and infrastructure projects: The recent reevaluation by our Direction – Barrages et infrastructures of the opportunities arising from technological innovation led to the launch of three projects: multiphysical analysis of embankment and concrete dam behavior, aging of rock-wall anchor bolts and simulation of control structure behavior.

■ Continuous measurement of hydraulic turbine flow: Turbine flow is now measured in real time through the use of probes. This innovation was designed to meet two objectives: optimal operation of generating units and optimal management of water based on precise information about turbine flow. La Grande-1, La Grande-3 and La Gabelle each received one of these measuring instruments in 2013.

By continuing to develop Québec's hydraulic resources into clean, renewable power, we will be able to meet the energy needs of future generations.

■ PréDDIT project (integrated turbine deterioration prediction and diagnostics): A Web application developed by IREQ for this project provides turbine diagnostics according to a reliability index based on real operation of the unit. The first version, delivered in 2013, includes the reliability ratings for 19 turbines at Beauharnois generating station and 4 at Robert-Bourassa. The PréDDIT project led to improvements to the cavitation detection system, as well. Detection campaigns were carried out at various generating stations during the year, including Chute-Allard and Rapides-des-Cœurs. In addition, we installed complete instrumentation on unit 32 at Beauharnois generating station to characterize the forces at play when the turbine is running and to understand how start-ups and shutdowns affect service life.

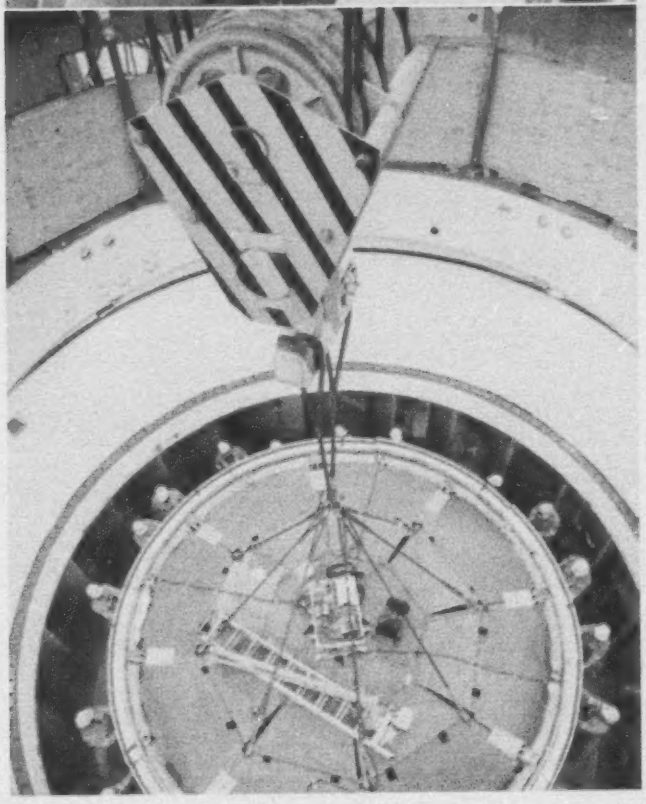
1 Moving a stator toward a turbine pit at Jean-Lesage generating station (formerly Manic-2).

2 At Beauharnois generating station, powerhouse mechanic Dominique Tardif prepares for installation of a runner in a turbine pit.

3 The three bulb-type generating units at Sarcelle powerhouse are now in service.

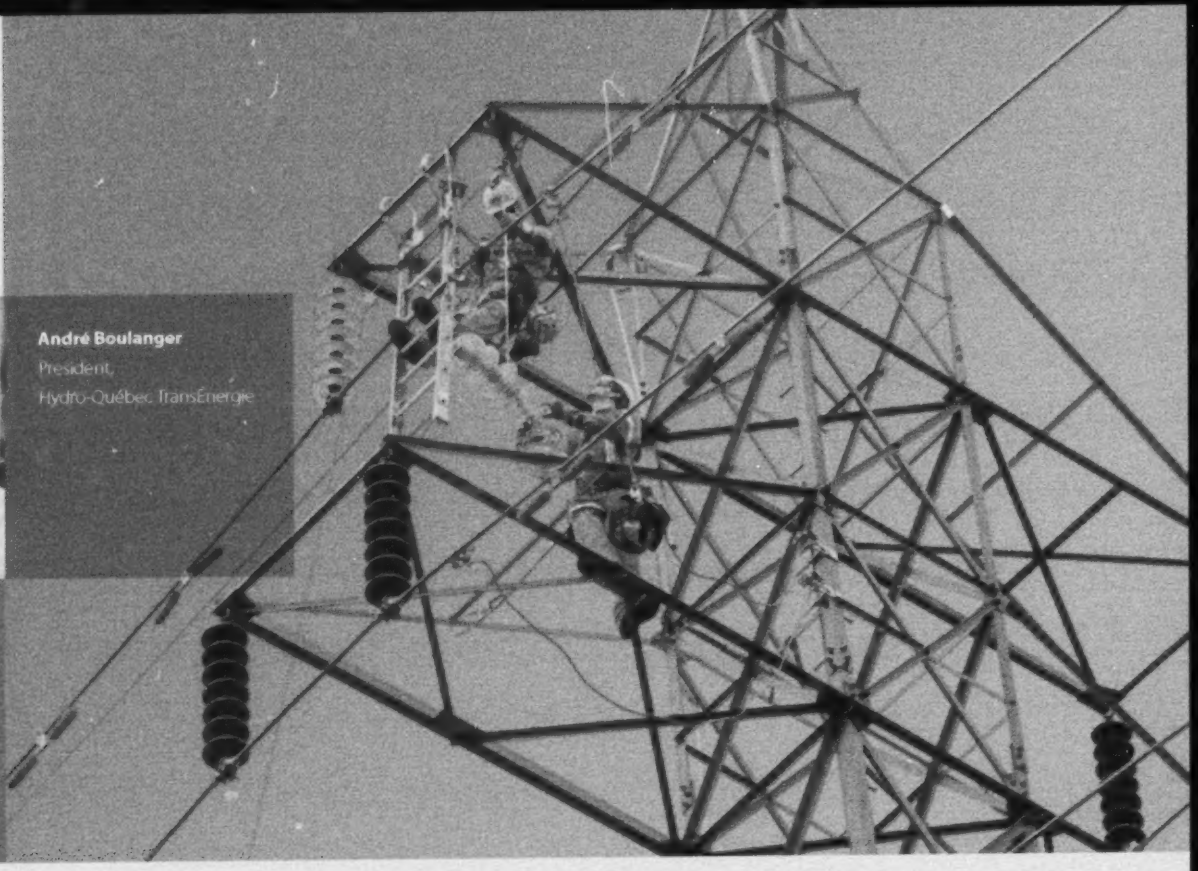
4 Powerhouse mechanic Martin Caza unscrews a bolt to remove the hoisting device used to lower a new turbine runner into its pit at Beauharnois generating station.

5 A new runner and head cover are lowered into a turbine pit at Beauharnois.



HYDRO-QUÉBEC TRANSÉNERGIE

André Boulanger
President,
Hydro-Québec TransÉnergie



Lineworkers Vincent Leduc and David Noiseux replace porcelain insulator strings with glass ones on a 120-kV line near Bromont.

2013 IN FIGURES

Revenue	**$3.0 billion**
Net result	**$513 million**
Customers (% of revenue)	
Hydro-Québec Distribution (native load transmission service)	**86%**
Hydro-Québec Production and other North American wholesalers (point-to-point transmission services)	**12%**
Other	**2%**
Property, plant and equipment as at December 31 (including work in progress)	**$19.2 billion**
Investments in property, plant and equipment and intangible assets	**$1.9 billion**

OUR MISSION

Hydro-Québec TransÉnergie operates the most extensive transmission system in North America, markets system capacity and manages power flows across Québec. Our Direction – Contrôle des mouvements d'énergie acts as Reliability Coordinator for transmission systems in Québec.

OUR FACILITIES

Our system comprises 33,613 km of transmission lines and 516 substations, including interconnections that allow power interchanges with grids in the Atlantic provinces, Ontario and the U.S. Northeast. Our tariff, approved by the Régie de l'énergie, ensures non-discriminatory access to our system in compliance with North American regulatory requirements.

OUR ACTIVITIES

To meet evolving customer needs and ensure high-quality transmission service, Hydro-Québec TransÉnergie works diligently to ensure the development, reliability and long-term operability of its system. With a view to continuously improving its performance, the division also focuses particular attention on developing its expertise.

Major Initiatives in All Areas

For Hydro-Québec TransÉnergie, 2013 was a year of intensive activity as demands on the grid rose steadily. Our capital investments totaled $1.9 billion, a record since the division was created nearly 20 years ago. We expanded our system to keep pace with native load growth, connect new hydro, wind and biomass generation, and transmit power beyond our borders.

We also pursued our efforts to ensure the sustainment of our assets through maintenance and by renewing equipment, in line with our vision of transmission system optimization.

Though Québec was hit by numerous natural events in 2013—forest fires, violent winds, lightning storms, etc.—the transmission system provided excellent service continuity, meeting customer expectations and the very stringent reliability standards governing North American grids. We owe this achievement to the steadfast commitment of our many teams carrying out their tightly planned tasks. We support them by improving the way we start up new facilities, target maintenance, plan work and ensure supplier accountability, while also maintaining a stimulating work environment for our entire staff.

We do not hesitate to adapt our work methods and maintenance activities without losing sight of employee and public safety, as attested by our very low work accident rate in 2013.

SUPPORTING GROWTH

In 2013, Hydro-Québec TransÉnergie devoted $998 million to developing the transmission system. We make sure that our grid is robust, reliable and able to transmit power everywhere it is needed. Our largest growth project—expansion of the transmission system in Minganie to connect the Romaine complex (1,550 MW)—involved a great deal of work in 2013, and will continue until 2020.

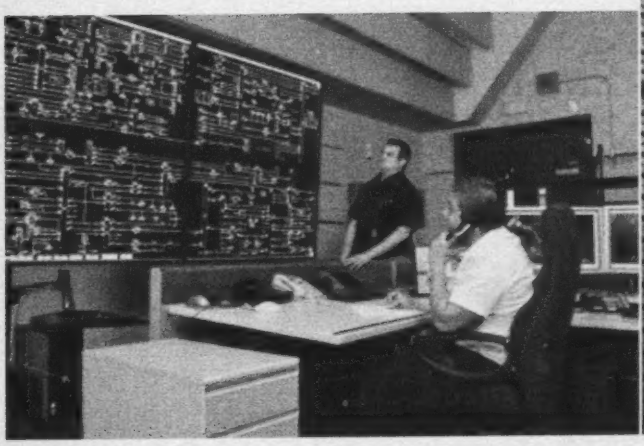
We commissioned a range of transmission facilities during the year to meet growing demand:

- In the Baie-James region, generation from the three units at Sarcelle is now on stream.
- In the Capitale-Nationale region, we completed construction of 230/25-kV Charlesbourg substation, which was needed to serve long-term load growth in metropolitan Québec and ensure sustained system operability. The substation went into service in October.
- In Montérégie, we commissioned 315/25-kV Saint-Bruno-de-Montarville substation in December to meet growing demand south of Montréal.
- In Terrebonne (Lanaudière region), we finished building 315/25-kV Lachenaie substation, designed to meet the growth in transmission load in the Mille-Îles Est area. The new facility was commissioned in December.
- In Lotbinière, a 120-kV double-circuit line between Chaudière and Saint-Agapit substations was completed and commissioned, providing increased capacity to serve native-load growth in the Chaudière-Appalaches region.

On January 22, 2014, electricity demand reached a historical peak of 39,240 MW.

To provide high-quality electrical service throughout Québec, we focus on the reliability, long-term operability and growth of the transmission system.

Power system electrician Stéphanie Lauzon and chief power system electrician Patrick Carrier discuss safety measures for the job they are to perform at Boucherville substation.



In 2013, our capital investments exceeded $1.9 billion, a new record.

Other major ongoing projects include the following:

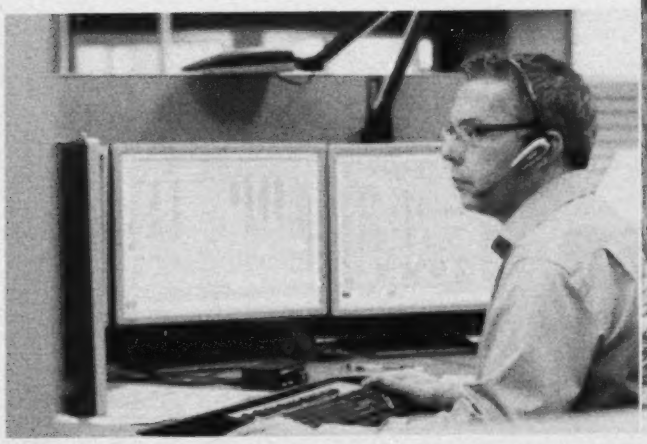
- As part of the project to expand the transmission system in Minganie and connect the Romaine complex, we continued building the switchyard at Romaine-2 generating station (640 MW) and the 735-kV line that will link it to Arnaud substation. In Manicouagan, construction of 735-kV Outardes substation and work on the related 735-kV lines made good progress. Scheduled completion: 2014.
- We are reinforcing the 120-kV system in the Palmarolle and Rouyn areas to keep up with and support electricity demand growth in the Abitibi region.
- We are building a 230-kV double-circuit line between Saint-Césaire and Bedford substations in Montérégie to secure supply to the native load.
- Construction of 315/120-kV Pierre-Le Gardeur substation in Lanaudière will solve transformer overloading problems at Duvernay substation.
- 2,000 MW of wind generation contracted for by the Distributor further to the 2005 tender call is progressively being brought onto the grid. In 2013, two wind farms, Seigneurie-de-Beaupré 2 and 3, were linked to the grid near the Seigneurie de la Côte-de-Beaupré by a 15-km, 315-kV tie line. To strengthen the main transmission system in preparation for receiving the new wind capacity, the thermal ratings of two 735-kV lines from Lévis substation were increased near Nicolet substation.
- A static var compensator was commissioned at Bout-de-l'Île substation in December to ensure firm transmission service to interconnections with New York State and New England. Series compensation with higher current-carrying capacity is required at Bergeronnes substation for the same purpose.
- We continued the project to reinforce the 230-kV and 120-kV grid supplying Bécancour industrial park (Centre-du-Québec) so it can reliably meet the growing needs of customers there.
- The addition of a 315/120-kV autotransformer and static var compensation at Figuery substation will help ensure system reliability in the Abitibi region.

In 2013, the Régie de l'énergie approved eight major Hydro-Québec TransÉnergie infrastructure projects, each costing $25 million or more, for a total of $626 million:

- Construction of 315/25-kV Duchesnay substation and its connection to the distribution system. This will ensure the long-term operability of the system and meet projected demand growth in the northwest portion of metropolitan Québec. Scheduled completion: 2015.
- Replacement of converter control and protection systems at Radisson and Nicolet substations, part of the transmission system carrying energy from the La Grande complex to southern Québec and New England. The project also includes work at Grondines and Lotbinière substations. Scheduled completion: 2016.
- Replacement of the Madawaska converter (Bas-Saint-Laurent) and related work on the 315/345-kV section of the substation. Scheduled completion: 2015.
- Replacement of 230-kV and 735-kV equipment, special protection systems and a relay building at Nicolet substation. Scheduled completion: 2018.
- Installation of a third 315/34-kV transformer at Normand substation near Fermont (Côte-Nord) to meet increased energy needs in the area. Scheduled completion: 2016.

INVESTMENTS IN THE TRANSMISSION SYSTEM ($M)

	2013	2012	2011	2010	2009
System growth	**998**	688	460	423	493
Asset sustainment (reliability and long-term operability)	**917**	735	832	825	703
Total	**1,915**	1,423	1,292	1,248	1,196



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Thanks to technological innovation, Hydro-Québec TransÉnergie is recognized as a world leader in transmission system design, operation and maintenance.

ASSET SUSTAINMENT

To meet the challenges raised by such an extensive and heavily used transmission system, we improve and adapt our work methods regularly to make sure that every job performed is of maximum benefit for the reliability, availability and long-term operability of the facilities involved. In 2013, $917 million was spent maintaining and enhancing the system, and replacing a number of assets. As transmission provider, Hydro-Québec TransÉnergie offers high-quality power transmission services to all customers within Québec and ensures transborder interchanges.

- Replacement of two static var compensators at Albanel substation (Baie-James) to ensure the facility's long-term operability. Scheduled completion: 2016.
- Increased transmission capacity to meet growing needs at the Alouette aluminum smelter in Sept-Îles. The project involves building a 15-km, 161-kV double-circuit line between Arnaud substation and the smelter substation. Scheduled completion: 2015.
- Construction of a new Fleury substation (315/25 kV) in a northern district of Montréal to ensure the long-term operability of the transmission system and meet short- and long-term load growth in this part of the island. Scheduled completion: 2017.

We conducted a number of technical and economic studies regarding the connection of industrial customers in the metals sector. Major mining projects are primarily in Abitibi, Côte-Nord and eastern Nunavik.

- We continued construction of a 735/315-kV section at Bout-de-l'Île substation, which will be the first 735-kV facility on the island of Montréal. The lines around the substation must also be reconfigured.
- Also in Montréal, we are rebuilding the substation on the existing Bélanger site to raise the voltage to 315/120/25 kV and continuing construction of 315/25-kV Henri-Bourassa substation near the existing Boutassa substation. Scheduled completion of both: 2014.
- At Châteauguay substation, work on most of the auxiliary electrical services was completed and the new equipment went into service.
- We began building 315/25-kV Lefrançois substation (Capitale-Nationale) to replace 69/25-kV Montmorency substation. Scheduled completion: 2014.

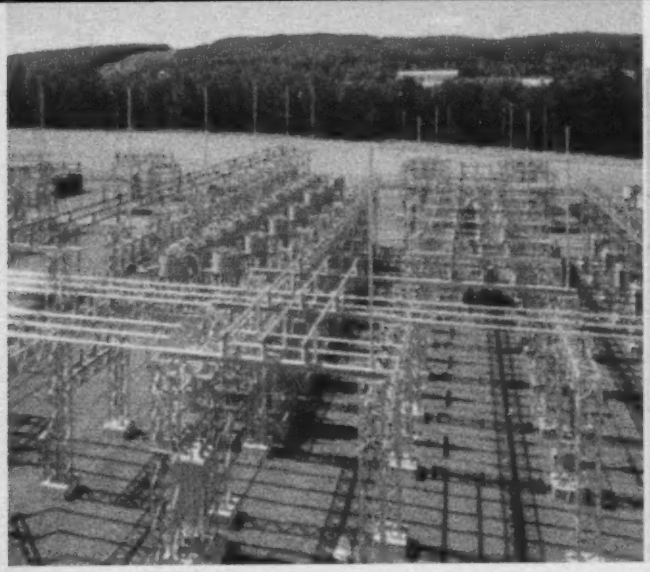
1 At the Trois-Rivières telecontrol centre, operators Denis Michaud (sitting) and Stéphane Guy.

2 At the Trois-Rivières transformer repair shop, chief power system electrician Daniel Bineau inspects a faulty low-voltage winding.

3 Agent Richard Lavigueur applies the outage notification procedure for scheduled work.

4 Lineworker Frédéric St-Louis, prevention advisor Christian Provost and line crew chief Michel Gravel check plans and health and safety details before they start inspection work.

- In Abitibi, three synchronous compensators were shipped to Cadillac substation for installation. Construction of the station services building progressed smoothly. Scheduled completion: 2014.
- At Nemiscau substation, a first static var compensator was replaced and the new one commissioned.
- Work began in 2013 and will continue in 2014 to prolong the reliable service life of a synchronous compensator at Manicouagan substation. Compensators keep the 735-kV system at a stable voltage.
- Replacement of 735-kV current transformers was successfully completed at strategic substations on the transmission system.



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Our projects undergo rigorous assessment to minimize their environmental effects and to maximize positive impacts on host communities.

SYSTEM RELIABILITY

In its capacity as Reliability Coordinator for Québec, our Direction – Contrôle des mouvements d'énergie submits the reliability standards established by the North American Electric Reliability Corporation (NERC) to the Régie de l'énergie. These must be applied under a continent-wide regime of mandatory standards. In 2013, the Reliability Coordinator continued its submissions to the Régie for adoption of the NERC reliability standards it proposes. The Régie adopted 23 of these in October and reserved its decision on about 50 others.

- The Reliability Coordinator continued public consultations regarding additional or updated reliability standards that it intends to submit to the Régie. It also is preparing to file an amended version of the guide on sanctions applicable in cases of non-compliance with NERC standards once the Régie reaches an agreement with NERC and the Northeast Power Coordinating Council (NPCC) on monitoring and enforcement of the standards.

DEVELOPING NEW APPROACHES

Our maintenance and sustainment strategies are progressing and coalescing into an integrated assets management model. With this approach, every action we implement is the one that maximizes reliability and availability to ensure long-term system operability.

- To support this progress, we are taking steps to improve our simulation tools for asset aging. We can simulate the impact of maintenance and sustainment strategies on the risk of asset failure, thereby better quantifying our financial and material needs.
- In 2012, we launched OSM, our maintenance system optimization program, in order to meet the challenges of long-term operability and maintenance, as well as efficiency issues. Program objectives are to ensure continuous operation while optimizing the management of maintenance activities on our transmission facilities and operational planning of the jobs our crews are to carry out. New technological tools were introduced in 2013 to facilitate job sequencing.
- Given our substantial capital spending, we continued to optimize our supply chain processes for more secure procurement of the material required and optimal costs throughout its service life.

HEALTH AND SAFETY

Workplace health and safety are one of our central concerns. In 2013, we continued our zero-tolerance program, launched in 2010, which is designed to reduce the number of work-related accidents by reminding all employees of the importance of applying prevention measures and following safety regulations.

R&D TO IMPROVE TRANSMISSION SERVICE

We use research and development to achieve continuous improvements in our performance. In 2013, we spent nearly $24 million in this area, moving toward our vision for 2030: a transmission system that is actively managed in real time, with continuous monitoring of the condition of equipment. We have also set in motion the process for determining our strategic positioning in the area of simulation. Our R&D projects are conducted in cooperation with Hydro-Québec's research institute, IREQ, as well as the company's other divisions and a number of well-known research centres and organizations.

- To improve the detection of vegetation encroaching on transmission line rights-of-way, in 2012 we conducted large-scale tests on a remote sensing technology called "LiDAR" (Light Detection And Ranging). This NERC-recognized

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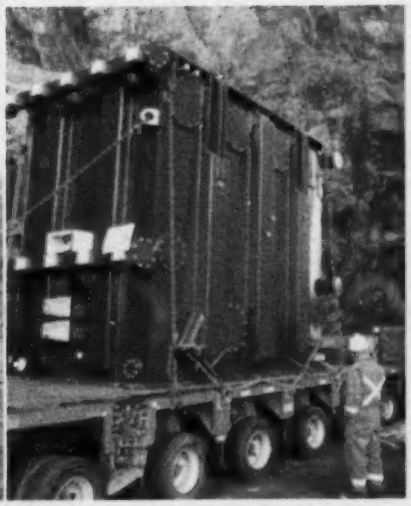

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method uses an airborne laser that scans an area, measuring the height of the ground cover. By combining the laser with GPS, the data can be georeferenced. In 2013, we continued to analyze the 2012 data in collaboration with the Géomatique unit of Hydro-Québec Équipement et services partagés. Through the progressive optimization of such inspections, vegetation can be kept at a distance that is safe for transmission lines, workers and the public.

- We successfully tested a robotic solution enabling operations and maintenance personnel to work at a distance on certain substation equipment. The prototype can perform visual inspections and operate motor-operated disconnect switches on 735-kV lines.
- The ACOR pilot project for grid response improvement passed a milestone in 2013 when its first components were commissioned at Chénier and Boucherville substations. However, commissioning at La Vérendrye substation was postponed to spring 2014. Tests are under way to check the operation of a new control system in a power grid environment. Studies have shown that such a system could enhance performance at least as much as a static var compensator.
- Maintenance personnel now have an additional tool for planning work on the steel foundations of transmission line towers. The Web-based tool uses sophisticated models to predict how much foundations in certain types of soils have corroded without unearthing them.
- In 2013, we began using the technology yielded by the SIRE project to simulate the impacts of bringing massive amounts of wind power onto the grid. Using the condition of the power system as a starting point, the simulator evaluates transmission system constraints once a minute on the basis of real-time management data, as well as historical wind generation and demand data.
- To maximize the operation of transformers without reducing their service life, we have developed a thermal model that can accurately evaluate actual transformer loading capacity. Validation of the thermal model is based on a prototype first used in 2013 and on a comparison of results with those from external partners.
- Work was carried out to ensure that the power system simulation laboratory at IREQ in Varennes would perform to its full potential, and the lab was inaugurated in November.
- The interface of our new real-time simulator of high-capacity power systems provides greater compatibility with offline simulation tools (EMTP-RV).

1 Charlesbourg substation was commissioned in October 2013.

2 Intervention advisor Bernard Panaroni tests the new motorized suspended platform, which can run on a single conductor or on a ground wire. A transfer arm enables the vehicle to clear warning markers or any other obstacle on the transmission system.

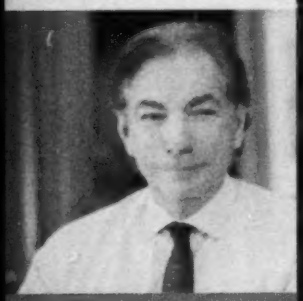
3 Hydro-Québec TransÉnergie lineworkers use a tracked crane to replace crossarms, even on live power lines.

4 The first of two new transformers for Manic-2 substation arrives at Jean-Lesage generating station in August 2013.

BREAKDOWN OF R&D INVESTMENTS IN 2013 ($M)

Technological innovation	**19.6**
Technical support	**3.9**
Technology watch	**0.4**

HYDRO-QUÉBEC DISTRIBUTION



Daniel Richard
President,
Hydro-Québec Distribution

Jean-Simon Désilets installs a next-generation meter.

2013 IN FIGURES

Revenue	**$11.2 billion**
Net result	**$410 million**
Market segments (% of revenue from electricity sales)	
Residential	44%
Commercial, institutional and small industrial	32%
Large industrial	22%
Other	2%
Property, plant and equipment as at December 31 (including work in progress)	**$9.2 billion**
Investments in property, plant and equipment and intangible assets (including the Energy Efficiency Plan)	**$882 million**

OUR MISSION

Hydro-Québec Distribution ensures a secure, reliable supply of electricity and delivers high-quality services to the Québec market.

OUR FACILITIES

The division operates 114,843 km of distribution lines and five distribution control centres. To serve customers on off-grid systems, it also operates 1 hydroelectric generating station, 24 thermal generating stations, 272 km of transmission lines and 11 substations.

OUR ACTIVITIES

To meet electricity demand, Hydro-Québec Distribution relies primarily on the heritage pool of 165 TWh supplied by Hydro-Québec Production. It also negotiates long-term supply contracts and purchases power on the market. The division operates the distribution system efficiently and ensures its reliability. Moreover, it handles relations with Hydro-Québec's domestic customer base. It offers customers products and services tailored to their needs, including a range of energy efficiency programs.

Evolving to Meet Customers' Needs

In the interest of meeting its customers' expectations efficiently and at the best possible cost, Hydro-Québec Distribution does its utmost to ensure the reliability of its system, improve and expand its service offerings, modernize its work methods and adopt leading-edge technologies.

The rollout of the advanced metering infrastructure (AMI) is key to the evolution of customer services. This structuring initiative paves the way for a smart grid that opens the door to a host of possibilities. We are able to provide new services to customers, optimize facility management and thus improve operating efficiency while ensuring the long-term operability of the meter fleet.

Since the beginning of the massive rollout of AMI in February 2013, more than 1 million next-generation meters have been installed in the greater Montréal area. Judging from the initial results, we are convinced that the project's objectives will be met and that it will come in under budget.

In October, we asked the Régie de l'énergie to approve the deployment of AMI in the rest of Québec. AMI technology, which has been adopted by many leading utilities, is already an industry standard.

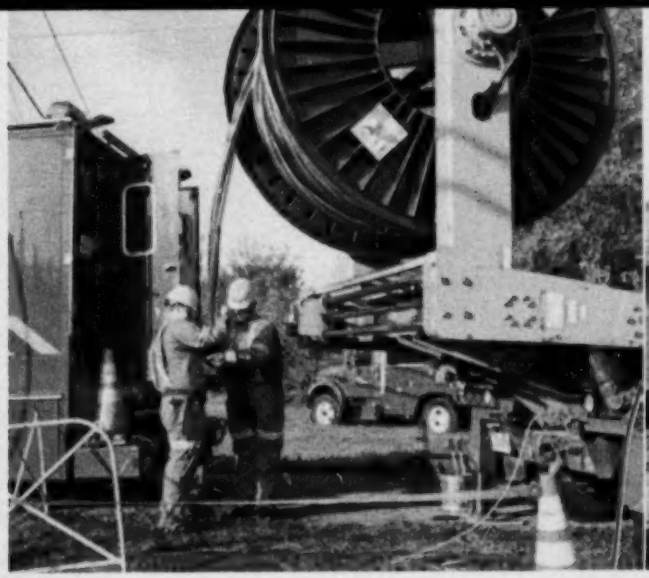
In the area of energy efficiency, our focus has turned toward awareness strategies that promote lasting changes in behavior, with a view to transforming the market and achieving long-term energy savings.

MANAGING SUPPLY RESOURCES

Our supply strategy makes use of a flexible energy portfolio that enables us to ensure reliable electrical service at the lowest cost in spite of fluctuations in demand.

- In November, we filed our Electricity Supply Plan 2014–2023 with the Régie de l'énergie. This document outlines supply strategies based on the demand forecast for Québec over the next 10 years. Compared to the previous supply plan, energy needs for the 2014–2023 period are down. This is mainly due to a decrease in industrial activity, particularly in the aluminum sector. At the same time, our energy portfolio has increased with the addition of blocks of energy ordered by the Québec government. This situation will lead to energy surpluses of approximately 75 TWh for the 2014–2023 period.
- In January, Courbe-du-Sault generating station began deliveries under the program for the purchase of power generated by small hydro plants (50 MW or less). The Québec government terminated this program in February 2013.
- In 2013, two generating stations selected under the power purchase program for forest biomass cogeneration, launched in December 2011, began delivering power. The contract power for the facilities now in service is 104.7 MW. Four new contracts were signed, bringing the power contracted under this program to 184.2 MW.
- In 2013, further to the 2009 call for 125 MW of biomass generation, two new generating stations began deliveries, bringing the contracted power in service to 51.9 MW.
- Eight wind farms built in response to the 2005 and 2009 calls for tenders were commissioned in 2013. The wind turbines now in service supply a total of 2,187.2 MW.
- A tender call for an additional 450 MW of wind power was issued in December 2013, following the adoption of a Québec government regulation.

Line crew chief Lee Millar installs a jumper, which ensures electrical continuity between two segments of power line.



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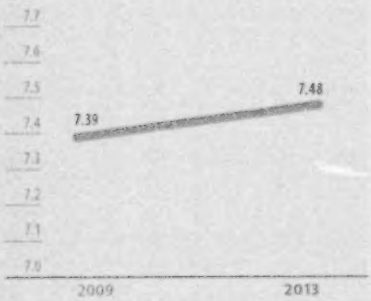
ONGOING INITIATIVES IN ENERGY EFFICIENCY

Given changes in the business context, markets and potential energy savings since the Energy Efficiency Plan was established in 2003, we reviewed our programs to better adapt them to the current energy landscape. In 2013, we continued to modernize our approach, focusing on awareness and support strategies that will have an impact on the market. Our goal is to promote lasting behavioral changes that can transform the market and lead to long-term energy savings. This approach encourages our customers to adopt better consumption habits.

- In 2013, our customers' participation in the Energy Efficiency Plan generated new savings of 619 GWh. Factoring in the CATVAR project and the programs sponsored by the Bureau de l'efficacité et de l'innovation énergétiques, to which we contribute, cumulative energy savings of 8.5 TWh have been achieved since 2003.

RESIDENTIAL, COMMERCIAL AND BUSINESS CUSTOMER SATISFACTION (OUT OF 10)



- In September, we launched a new program to encourage residential customers to use products that save water and energy. These products help reduce water consumption by up to 40% compared to conventional products, without sacrificing comfort.
- In the spring, we introduced our Efficient Pools Program. This program aims to reduce the energy consumption of residential pools and promote energy-efficient behaviors as well as the purchase, installation and use of three products: timers, solar pool covers and two-speed pumps.
- We are endeavoring to guide the market towards efficient lighting, in particular through an increased contribution to the standardization and regulation of efficient lighting products.
- For business customers, integrated energy efficiency programs for buildings and industrial systems led to increased participation by commercial, institutional and industrial customers, thanks to their streamlined application.
- In November, Hydro-Québec received two ENERGY STAR® awards from the Government of Canada: Utility of the Year – Provincial, and Promotional Campaign of the Year, for the Lighting campaign. These are the 12th and 13th awards Hydro-Québec has won under this Natural Resources Canada program.

ONGOING COMMITMENT TO CUSTOMERS

By carrying out our work according to industry best practices and by fulfilling our commitments, we strengthen the relationship of trust with our customers.

- In 2013, customer satisfaction regarding interactions with the company was 8.3 out of 10. Our call centres are continuing their efforts to improve customer relations by reinforcing the quality assurance plan, which will contribute to increasing the number of requests resolved on the first call.
- In 2013, 31% of disconnection and connection requests during moving season were made online or through our interactive voice response system. Since March, this system has been providing customers with a shorter menu and simplified access to self-service.
- Online Billing continues to gain in popularity, with some 78,000 additional customers opting for this service in 2013. In all, some 634,000 customers—20% of residential customers—have given up paper bills, allowing us to avoid printing 6 million bills per year. Enhanced Web-based offerings, particularly simplified access to online services, will help provide more value to customers.

- In March 2013, the Régie de l'énergie approved an across-the-board electricity rate increase of 2.4%, effective April 1, 2013.
- In August, we filed an application with the Régie de l'énergie for a 3.4% adjustment in electricity rates, effective April 1, 2014. The main reasons for the adjustment are the indexing of the heritage pool price and the cost of wind energy purchase contracts ordered by the Québec government over the past decade. However, Hydro-Québec will offset the costs of demand growth in Québec with $160 million in efficiency gains.
- In conjunction with Hydro-Québec TransÉnergie, we asked the Régie de l'énergie to increase the rate of return for the two divisions to bring it in line with that of similar companies in Québec and elsewhere in North America. This would lead to a 2.4% rise in electricity rates, bringing the overall adjustment requested for 2014 to 5.8%. The filing also included a proposed sharing mechanism that would enable customers to benefit from Hydro-Québec's cost reductions. The Régie de l'énergie's rulings are expected in the first quarter of 2014.
- Hydro-Québec continues to support low-income customers who have difficulty paying their electricity bills. In 2013, we entered into 66,913 arrangements with these customers, for a total of $29.4 million.

A SYSTEM ENHANCED BY TOMORROW'S TECHNOLOGY

Hydro-Québec Distribution continues to invest in the development, reliability and long-term operability of its facilities in order to ensure high-quality electrical service. Its main projects are the deployment of an advanced metering infrastructure and the modernization of business practices related to system operations.

- The rollout of next-generation meters has been favorably received by customers. Satisfaction with the installation process is 8.7 out of 10, and the opt-out rate has leveled out at 0.3%, far below our forecast of 1.0%.
- The advanced metering infrastructure has proven very stable and effective. Customers are billed on the basis of actual readings in nearly 100% of cases.

1 Cable worker Caroline Gagnon and cable crew chief Kevin Tremblay prepare a cable for underground installation in a municipality on the island of Montréal.

2 Overhead work in the Laurentides, winter 2013.

3 In 2013, we handled more than 45,000 connection requests requiring $178 million worth of work.

4 A 400,000th inefficient appliance was collected under the RECYC-FRIGO program in July 2013. Marc-André Roy, a resident of the Montréal borough of Ville-Marie, and Maria Vaccaro, Manager – Energy Efficiency – Residential.

HYDRO-QUÉBEC DISTRIBUTION'S INVESTMENTS, EXCLUDING THE EEP[a] ($M)

	2013	2012	2011	2010	2009
Development	**313**	336	326	346	325
Asset sustainment (reliability and long-term operability)	**456**	394	407	382	384
Total	**769**	730	733	728	709

a) EEP: Energy Efficiency Plan

Hydro-Québec Distribution is making substantial efforts to improve all customer communication channels.

■ We have begun developing several functionalities for this evolvable technological infrastructure. In particular, we have remotely read 103,000 meters on the exact date of a move, so that consumption could be divided fairly between previous and new occupants. In cooperation with Hydro-Québec's research institute, IREQ, we have developed a technical solution to help detect electricity theft. We have also developed an algorithm to integrate data from distribution control centres to facilitate outage management. Finally, customers who need to have power reconnected—for example, after having work done, when opening their cottage, or when moving into previously vacant premises—will have electricity supplied sooner, since the operation can be done remotely.

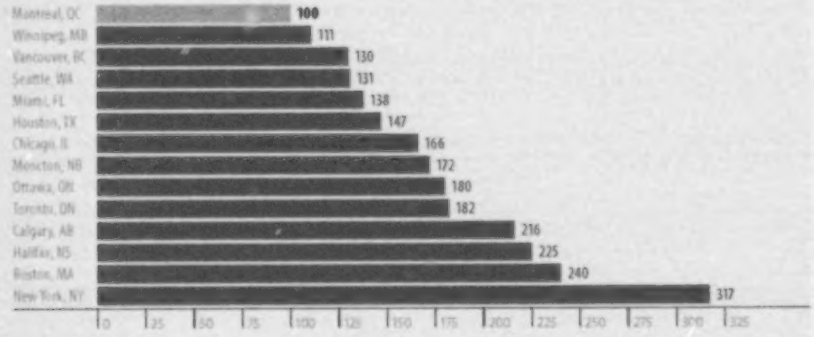
■ In September, the Régie de l'énergie approved the SOGEM project (line crew scheduling and management solutions), which aims to modernize our business processes, particularly those associated with distribution system operations. SOGEM proposes powerful, scalable software for centralized management of interventions on the 114,843-km distribution grid. This includes repair scheduling, crew dispatching, viewing of job sites and a geographic mobility solution for use by line crews in the field.

■ Use of mobile platforms increased during the year. Engineering teams, line crews and dispatchers have adopted various tools designed to improve customer service calls through better targeting of needs and priorities. For example, photos can be taken with a tablet to supplement a field survey, and a Web-based application is used to optimize dispatching of the appropriate equipment to the work site—improvements that give the line crews greater flexibility.

■ On July 19, severe thunderstorms and high winds swept through southern Québec, affecting more customers than any event since the 1998 ice storm. At the height of the disturbances, nearly 560,000 customers were without electricity. Given the high number of outages, our crews had to carry out a multitude of repairs to restore service, often one customer at a time. By 11 a.m. on July 22, service had been restored to over 90% of affected customers.

■ Vegetation control is essential to make sure the system runs optimally, prevent outages, and protect equipment as well as people who travel along rights-of-way for work or recreation. The sums allocated to this work totaled $66.3 million in 2013, compared to a budget of $61.2 million. In 2013, more than 90% of scheduled vegetation control was done in compliance with special directives for biodiversity enhancement.

COMPARATIVE INDEX OF ELECTRICITY PRICES AT APRIL 1, 2013 – RESIDENTIAL CUSTOMERS[a]



a) Monthly bill (before taxes) for a consumption of 1,000 kWh.

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INNOVATING TO IMPROVE DISTRIBUTION SERVICE AND ENERGY EFFICIENCY

Hydro-Québec Distribution counts on innovation to enhance system performance and intelligence, improve the efficiency of technical operations in the field and support energy efficiency and sustainability efforts. In 2013, the division spent $23 million on innovation projects carried out in conjunction with IREQ.

- IREQ developed a remote manipulator capable of lifting 25 kV conductors. It is designed for live-line maintenance, thus offering considerable advantages in terms of safety and repair time. In 2013, we designed an industrial version in collaboration with a Québec-based partner, Movex Innovation, and concluded the validation testing. Hydro-Québec Distribution already has 10 remote manipulators in operation.
- The deployment of smart meters and the associated infrastructure supplies a large quantity of operational data to Hydro-Québec Distribution. Processing this data and cross-referencing it with other company databases is a significant challenge whose results can, however, make an invaluable contribution to system management and the quality of service. In 2013, this led to new applications that were tested on the system with convincing results. Among other things, they allowed us to detect and correct inconsistencies in network topology data, identify overloaded transformers during the winter peak, and establish reconfiguration scenarios during outages to reduce the number of affected customers.
- Developed by IREQ, the MILE system (intelligent power line maintenance) aims to reduce the number and duration of power outages, thereby improving service continuity. The pilot project data shows a 50% reduction in the frequency of avoidable outages and a 60% improvement in the system interruption duration index for the lines equipped with this technology. In 2013, the pilot project was extended to 10 more lines that are among the most outage-prone, covering 1,600 km and supplying 15,000 customers.
- IREQ's energy technologies laboratory, LTE, works with businesses to help them be more competitive by making more efficient use of electricity. In 2013, LTE worked with CEZinc and the University of British Columbia on several projects designed to increase the service life of anodes and reduce the energy consumption of zinc refining and cementation processes. It also studied the possibility of applying various electrotechnologies to biorefining, to keep the use of fossil fuels to a minimum.

1 Guide Julien Neves explains the rollout of next-generation meters during an open house in Longueuil.

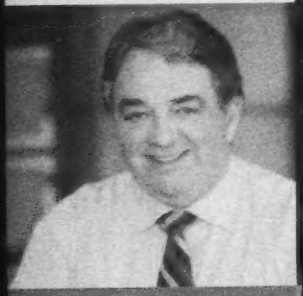
2 Lineworker Patrick Blanchard prepares a transformer for installation.

3 Hydro-Québec Distribution crews got to work quickly when outages occurred after storms swept through southern Québec in July 2013.

4 Hydro-Québec Distribution spared no effort to restore service to customers affected by outages in December 2013. More than 800 workers were quickly called in and did a remarkable job under difficult conditions during the holidays. The outages affected 405,750 customers, and 96% had service restored within 24 hours.

- Electricity use peaks during the winter. To evaluate the potential of demand side management in winter conditions, we conducted a pilot project on two homes in the Boucherville smart grid zone, an area where we test overhead system technologies in real-world conditions.
- Using two test houses built on the LTE site, we evaluated the effect that heat-recovery ventilators, range hoods and dryers have on energy consumption and power demand. This full-scale test bench is used to study comfort parameters with a view to guiding research on energy efficiency.

HYDRO-QUÉBEC ÉQUIPEMENT ET SERVICES PARTAGÉS AND SEBJ



Réal Laporte
President,
Hydro-Québec Équipement
et services partagés
President and Chief Executive
Officer, Société d'énergie
de la Baie James

Formwork for the lower transition section of a penstock at Romaine-1.

2013 IN FIGURES

Volume of activity	
Construction (HQESP and SEBJ)	**$2.6 billion**
Shared services	**$0.5 billion**
Main customers – Construction	
Hydro-Québec Production	**43%**
Hydro-Québec TransÉnergie	**56%**

OUR MISSION

Hydro-Québec Équipement et services partagés (HQESP) and Société d'énergie de la Baie James (SEBJ) design and carry out projects for the construction and refurbishment of generating and transmission facilities that optimally meet Hydro-Québec's needs. Working in partnership with host communities and industry, we offer high-quality, cost-effective solutions that apply best practices in social and environmental acceptability. Furthermore, through the Centre de services partagés (shared services centre), HQESP offers real estate management, materials management, procurement, transportation and other services to all Hydro-Québec divisions and corporate units.

OUR ACTIVITIES

Our services cover all project stages and aspects: management, communications with stakeholders, permitting, field surveys and geomatics, biophysical and human environment studies, design and implementation of environmental measures, engineering, procurement, construction, health and safety, in-plant and on-site quality assurance, and project management up to handoff to the operator. We are constantly seeking new ways to maximize facility performance while reducing costs and construction time.

Mobilizing Our Expertise

At Hydro-Québec Équipement et services partagés and Société d'énergie de la Baie James, our volume of activity totaled $3.1 billion in 2013: $2.6 billion for more than 1,200 construction projects carried out for Hydro-Québec TransÉnergie and Hydro-Québec Production, as well as $0.5 billion for shared services.

Transmission projects filled a large part of our order book. Our crews were busy in the Côte-Nord region building Romaine-2 substation and the 262-km line linking it to Arnaud substation. Other major mandates are under way across Québec to develop the transmission grid according to needs and requirements.

With regard to generation, we completed construction of the Eastmain-1-A/Sarcelle/Rupert project and handed it off to Hydro-Québec Production. At the Romaine complex, the construction peak continued for a third year running, with more than 2,000 people on the jobsites. Work is winding down at Romaine-2, while the Romaine-1 structures are taking shape and the Romaine-3 jobsite is entering its second year.

We are constantly reviewing how we work in order to streamline and facilitate our processes. With the volume of work we do, even a modest improvement can result in substantial savings. Our main innovations in 2013 involved computer-aided design, maximizing benefits from digital tools and greater use of prefabricated and pre-assembled structures.

Our employees and contractor personnel face many challenges: building in mountainous terrain, working in water and at heights, handling sophisticated heavy machinery—all tasks beset with hazards. Our accident rate is among the lowest in the industry, and we are pursuing our efforts to further reduce risks so that working on our jobsites will remain a safe, positive experience and a source of pride for those involved.

PURSUIT OF INNOVATIVE SOLUTIONS

We are responsible for delivering quality products at optimal cost to our clients in generation and transmission. We strive to improve each and every aspect of our projects. Structure design is now virtual, certain parts are plant-manufactured and construction techniques are increasingly refined to reduce lead times. The experience and expertise of our people on site and feedback from end customers are taken into account when we determine structure characteristics and select work methods.

VOLUME OF CONSTRUCTION ACTIVITY ($B, FINANCING EXCLUDED)

2013	2012	2011	2010	2009
2.6	2.3	2.1	2.6	2.6

The Romaine complex will generate 8 TWh a year—enough power to supply 470,000 Québec households.

KEY ACHIEVEMENTS IN GENERATION PROJECTS

- Construction of the Romaine complex, started in 2009, is still under way in the Minganie region. Milestones for Romaine-2 in 2013 included construction of the retaining and headrace structures and mass concreting and embedment of the permanent structures. At the Romaine-1 jobsite, we completed bedrock excavation for the powerhouse, headrace canal and tailrace canal, while at the Romaine-3 site, we started excavating the diversion tunnel. When it is fully commissioned in 2020, the complex will comprise four hydropower stations with a total capacity of 1,550 MW.

Forest engineer Angie Cassista, environmental advisor Guillaume Roy and forest engineer Mathieu Tremblay discuss reforestation work to restore a site after a construction project.

1

2

To continually improve our health and safety record, we rely upon workers' motivation and rigorous control of high-risk behavior.

■ In Baie-James, Satcelle powerhouse was commissioned in 2013 and implementation of the last mitigation measures is nearing completion. This was the final stage in the vast Eastmain-1-A/Sarcelle/Rupert project, which consisted in building two powerhouses (combined capacity of 918 MW) and diverting part of the Rivière Rupert's flow to the existing Eastmain 1 reservoir. Overall, the project adds 8.7 TWh to the company's annual output.

■ A number of jobs involved generating units in the Manicouagan region. For example, we overhauled two speed governors at Bersimis-2, a turbine runner and station services at Jean-Lesage (formerly Manic-2) and a stator at René-Lévesque generating station (Manic-3).

■ In the Laurentides, we refurbished the fire and service water distribution systems at Carillon generating station.

■ In Montérégie, refurbishment work optimized the performance of a unit at Beauharnois.

KEY ACHIEVEMENTS IN TRANSMISSION PROJECTS

■ In Montérégie, we commissioned 315/25-kV Saint-Bruno-de-Montarville substation to keep pace with growing electricity demand south of Montréal. It took considerable skill and the creativity on the part of engineers and project managers to build the substation on constricted industrial lot that was available.

■ In Lanaudière, we completed construction of 315/25-kV Lachenaie substation, in response to growing demand in that area.

■ In the Capitale-Nationale region, 230/25-kV Charlesbourg substation is now helping to supply the city of Québec. We also connected the Seigneurie-de-Beaupré wind farms to the power grid over a 315-kV tie.

■ In the Capitale-Nationale region, a meeting to consult citizens and ensure the project's social acceptability led to a permanent, well-received solution for connecting Limoilou substation, commissioned in 2012 with a temporary link. The permanent line is scheduled to begin service in July 2015.

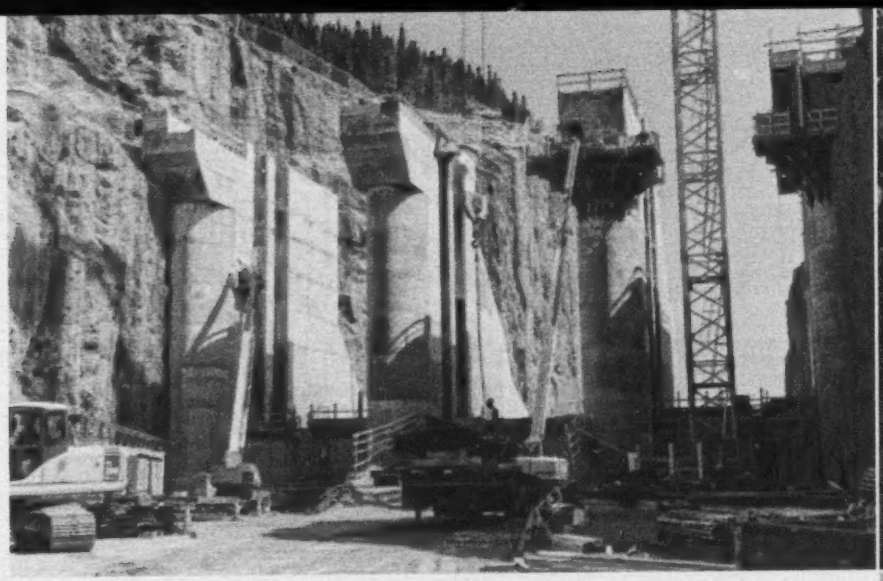
GENERATION: WORK IN PROGRESS

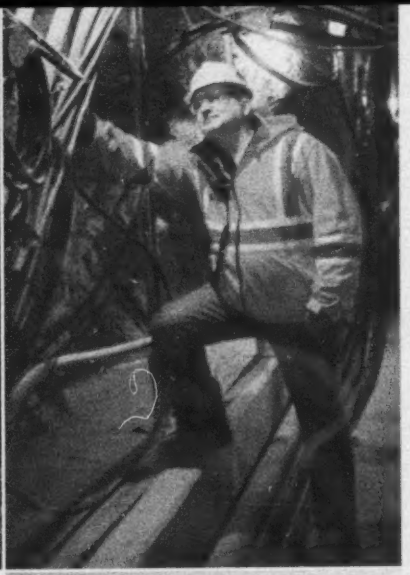
The Romaine complex was our main generation project in 2013. Our crews were at work on the first three jobsites and on the stretch of roadway leading to Romaine-4. We also continued our efforts to ensure the long-term operability and optimal performance of our facilities across Québec. Work on generation facilities in 2013 totaled $1.1 billion.

■ The Romaine complex is under construction in Minganie:

- At Romaine-2, we continued to install the generating units and station mechanical and electrical facilities in preparation for commissioning in 2014.
- At the Romaine-1 site, we began construction of the dam and concreting of the permanent structures. That development is to be commissioned in 2016.
- At the Romaine-3 jobsite, excavation of the diversion tunnel began, and we continued working on the design and engineering of the permanent structures.
- The stretch of Route de la Romaine between Romaine-3 and Romaine-4, about 26 km long, is under construction and will be completed in summer 2014.

Since work on the Romaine complex began in 2009, Hydro-Québec has awarded nearly $2.4 billion in construction contracts.





The Romaine project was the focus of intensive work valued at $718 million (financing excluded). Employment totaled 1,520 person-years, with Côte-Nord and Innu workers making up 37% and 9% of the labor force, respectively. Contracts worth $126 million were awarded in the region.

- In Montérégie, refurbishment work will extend the service life of a unit at Les Cèdres generating station.
- In the Outaouais region, our crews were busy at Paugan generating station refurbishing two units scheduled to resume service in 2014.
- Several jobs were under way in Mauricie:
  - Spillway refurbishment began at Trenche and Beaumont generating stations.
  - Spillway and excitation system refurbishment continued at La Tuque generating station.
  - Work was done on the Gouin dam spillway and bottom outlets.
- In Abitibi-Témiscamingue, we replaced the first turbine runners at Rapide-2 and Rapide-7 generating stations in a series of jobs that will continue until 2016.
- In 2013, the accident frequency rate was 7.7 per million hours worked on our jobsites, which is six times lower than the average rate on Québec construction sites in 2012. We have introduced a number of measures in recent years to strengthen a culture of safety at our jobsites, including implementation of an occupational health and safety management system according to standard OHSAS 18001.
- At Akulivik in Nunavik, we began construction of a new 2,025-kW thermal power plant, to be equipped with three generator sets that perform better and pollute less than those of the existing plant, which is over 30 years old.

Besides engineering and construction, our responsabilities include taking host communities' concerns into account from the design stage onwards. We obtain government approvals and ensure environmental compliance on jobsites, while implementing environmental impact mitigation measures.

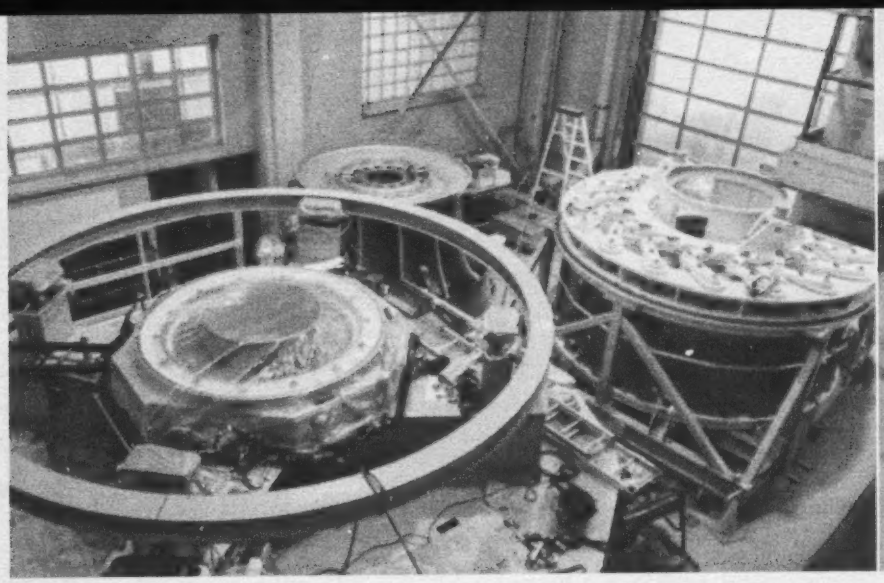
1 Installation of new prefabricated concrete footings at Châteauguay substation.

2 The new 735/315-kV section under construction at Bout-de-l'Île substation.

3 Structural concreting of the spillway at the Romaine-2 development.

4 Safety advisor Luc Gagné inspects temporary electrical installations at the Romaine-2 generating station jobsite.

5 Assembling the crossarm of a tubular pole for the Bélanger substation 315-kV line.



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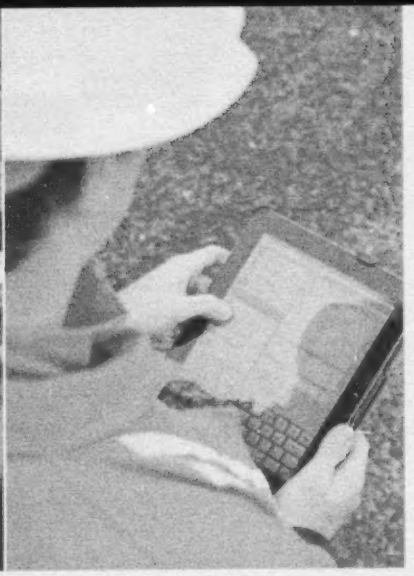

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TRANSMISSION: WORK IN PROGRESS

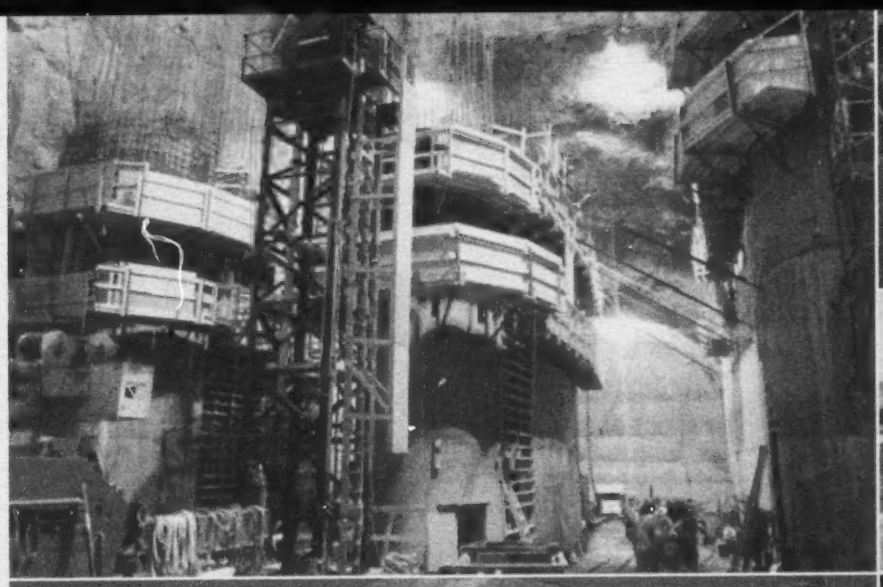
The volume of our transmission activities rose to $1.4 billion in 2013, up $0.3 billion from 2012. Work focused on development of the 735-kV and 315-kV systems in metropolitan Montréal, as well as in Manicouagan and Minganie, and on integration of a wind farm in the Capitale-Nationale region. A number of new projects are being developed, which led to major information and consultation efforts in host communities throughout the year.

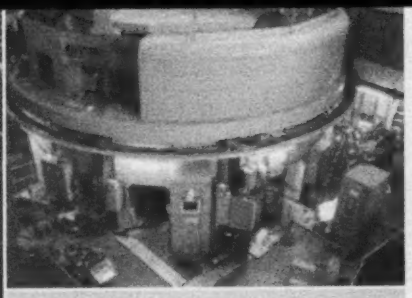
- In Minganie, we continued construction work on the 735-kV Romaine-2–Arnaud line and Romaine-2 substation. The construction of Outardes substation and associated 735-kV lines is under way in the Manicouagan region.
- In metropolitan Montréal, work focused on meeting growing electricity demand and ensuring the long-term operability of existing facilities:
  - Construction of 315/25-kV Henri-Bourassa substation to replace the existing 120/12-kV Bourassa substation
  - Addition of a static var compensator and 735/315-kV section at Bout-de-l'Île substation, now limited to an operating voltage of 315 kV
  - Rebuilding Bélanger substation and its tap line to raise the voltage level to 315 kV
  - Construction of 315/120-kV Pierre-Le Gardeur substation in the Lanaudière region
- In the Capitale-Nationale region, our crews are busy erecting a 315-kV tie line to connect Rivière-du-Moulin wind farm; they are also building 315/25-kV Lefrançois substation, which will replace 69/25-kV Montmorency substation.
- In 2013, several projects were either under study, approved by the Régie de l'énergie or being reviewed by the competent authorities. For example:
  - In Nord-du-Québec, we are replacing Waswanipi substation with a new 315/25-kV substation and 315-kV tie. The existing substation is connected to the grid over a 44-kV line, providing insufficient capacity to meet growing demand in the village of Waswanipi.
  - In Montréal, we are building a new 315/25-kV substation, Fleury, and a 315-kV tap line. We also anticipate rebuilding De Lorimier substation to raise the voltage to 315/25 kV and running new 315-kV underground lines in order to meet higher demand in the eastern part of downtown Montréal.
  - In the Capitale-Nationale region, public hearings were held during the Bureau d'audiences publiques sur l'environnement's information and consultation period regarding the planned 315/25-kV Duchesnay substation and 315-kV tap line.

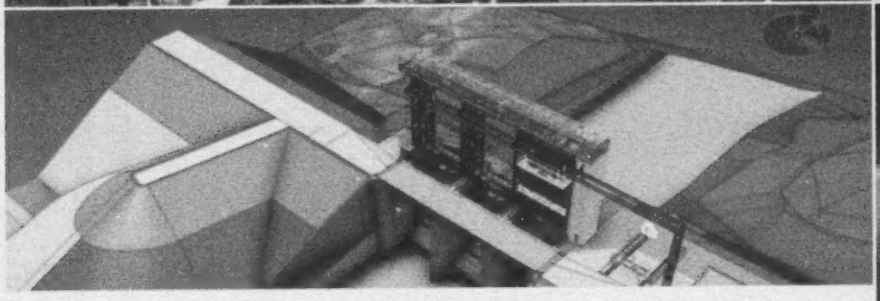
STEADY PROGRESS IN WORK METHODS

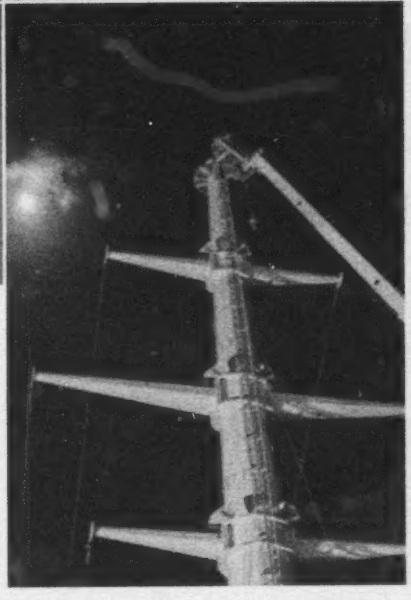
At Hydro-Québec Équipement et services partagés and SEBJ, innovation is a core asset in all projects we undertake. We are particularly focused on the opportunities offered by the shift to digital techniques, computer-aided design and modular construction. Backed by the expertise of our specialists and the know-how of our field personnel, we design high-quality facilities at a better cost—and rapidly, considering the nature of the work to be done.

- More and more over the past few years, we have been using CATIA 3D software to create 3D digital models in order to visualize structures to be built. With the tool, most of the data from all disciplines supporting the design and implementation of a project can be integrated into a virtual model. Use of the tool expanded further in 2013 following recognition of the digital model approval protocol that we developed for the Ordre des ingénieurs du Québec. This will make it possible to develop requests for proposals using contractual models (no drawings).









■ Contractors, too, are being asked to move to digital techniques. For the first time, we will launch a call for tenders without 2D drawings for construction of the Romaine-3 water intake. Interested contractors will have to prepare their bids with a digital model only. This has the advantage of clearly representing the volumes to be handled and makes it easier to plan and optimize complex jobs.

■ Proposed by a think tank we set up, the idea of using a touch screen instead of paper drawings made its way into reality. The result is a touch-screen table for consulting, annotating and manipulating drawings. Shaped like a drafting table, the touch-screen table performs all the functions of a conventional plan room while offering remote collaborators real-time access. The drawing display and processing software can also be used on a desktop computer or tablet. The touch-screen table was designed by the Montréal firm Smart-Use in collaboration with our employees.

When designing new facilities, Hydro-Québec seeks the optimal solution by considering both the economic aspects and environmental acceptability.

■ We are making increasing use of prefabricated components to simplify installation processes and shorten construction lead times. Work to refurbish two static var compensators at Nemiscau substation is a good example of how we achieve efficiencies. The new station services building—factory prefabricated and assembled on site—was installed on grillage foundations, while certain elements such as busbars were factory pre-assembled. A 3D simulation helped meet new clearance requirements between pieces of equipment, some of which had to be stacked.

1 We replaced turbine runners at Rapide-2 generating station.

2 Like many jobsite workers at Hydro-Québec Équipement et services partagés, trainee Xavier Archambault-Alwyn uses a tablet with the Smart-Use application to draft his field report.

3 Reinforcement and formwork for the upstream portal of the temporary diversion tunnel at the Romaine-3 jobsite.

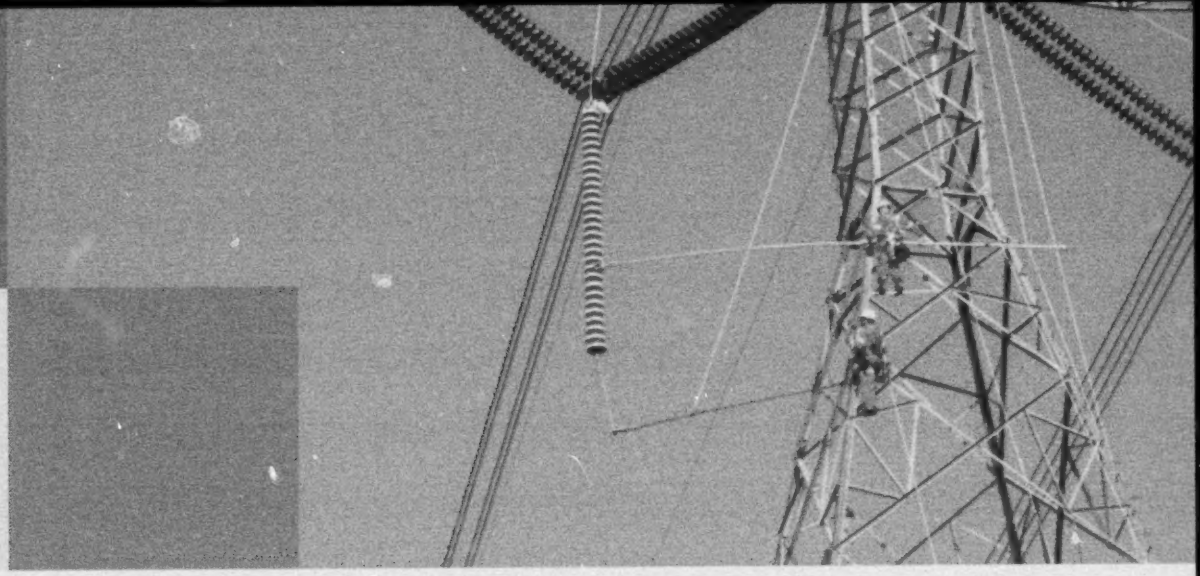
4 Major refurbishment work at Paugan generating station has increased its capacity.

5 Construction of a new thermal power plant to supply the Nord-du-Québec village of Akulivik.

6 Virtual model of the Romaine-1 spillway, developed with CATIA 3D software.

7 Cable-pulling work is performed at night for the new Bélanger substation 315-kV line.

TECHNOLOGICAL INNOVATION: AN AVENUE FOR STRATEGIC DEVELOPMENT



As an avenue for strategic development, technological innovation is a constant factor in Hydro-Québec's success. Our innovation projects have two major objectives: optimize the existing power system and extend its useful life, and make the future grid smarter, more automated and more flexible in order to serve customers better.

Innovation efforts are primarily carried out by the Groupe – Technologie, which comprises the company's research institute, the Institut de recherche d'Hydro-Québec (IREQ), as well as the Direction principale – Télécommunications and the Direction principale – Technologie de l'information. With an annual budget of $100 million, IREQ focuses on power grid intelligence, reliability and long-term operability. IREQ runs its projects hand in hand with the Hydro-Québec divisions concerned, supported by IT and communications specialists in the Groupe – Technologie.

Hydro-Québec also devotes considerable effort to modernizing its telecommunications network, integrating the information and communication systems underlying all of its activities, and improving IT security, including cybersecurity.

SMART POWER GRID

Progress towards an increasingly smart and automated grid is a high priority for Hydro-Québec and mobilizes IREQ researchers and a broad array of specialists, especially IT and communications experts from the Groupe – Technologie. We also partner with several highly regarded research centres and organizations. Some 20 projects are now under way.

In 2013, Hydro-Québec maintained the technological priorities set out in its Smart Grid innovation program for 2012–2017.

- To increase transmission system capacity, we launched an initiative spawned by the ACOR project on grid response improvement. Its purpose is to achieve system-wide voltage control by deploying phasor measurement units (PMUs). IREQ developed controllers and intelligent electronic devices (IEDs) that capture and transmit data on grid behavior and report on grid condition. This data can be used to offset voltage drops and increase transmission reliability margins. The technology is already deployed at 4 facilities and will ultimately be installed at 17 across Québec.

INFORMATION AND COMMUNICATION TECHNOLOGIES

Developing information and communication technologies (ICT) is a priority for Hydro-Québec because they play a key role in all areas of company activity. Through these technologies, data is transmitted and made available to support power system operations and to provide management information that makes the company more efficient.

In information technology, improving efficiency and automating work processes means a larger number of IT solutions and an increasing volume of data to process and store.

In telecommunications, operation of an increasingly complex and smart power grid requires tight integration of technologies, especially control and protection systems. We must also meet the growing needs of the company, which increasingly relies on high-performance, reliable and secure telecommunication services to achieve its business objectives.

A new way of managing ICT services was introduced in 2013 in order to leverage converging technologies and meet company efficiency requirements. This unified vision allows users to benefit from coordinated, strategic and effective service.

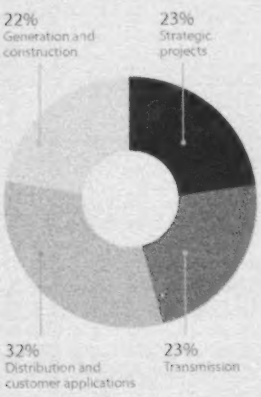
Previous page
IREQ has designed a tool to detect faulty insulators on DC transmission lines. The tool will be used by Hydro-Québec TransÉnergie lineworkers.

1 Researchers Mélanie Lévesque and Claude Hudon examine a specimen from a generator bar. Their work is on degradation mechanisms affecting electrical equipment.

We took advantage of the company's substation and generating station refurbishment program to continue doing the work needed to modernize Hydro-Québec's telecommunications network. We also continued the conversion to digital microwave links, including those between Manicouagan and Sept-Îles substations (southern section of the Manicouagan–Manic-5–Montagnais loop), and between Boucherville and Jacques-Cartier substations.

- We pursued deployment of the new IP/MPLS network and the gradual migration of services to it. Regarding IP telephony, centralized infrastructure for the service was installed and an initial pilot project conducted.
- We installed new telecommunications infrastructure as part of different projects, such as the integration of new substations (including the one at Romaine-2) and connection of privately owned wind farms.
- In 2013, over one million next-generation meters were installed, as was the telecommunications equipment supporting the advanced metering infrastructure. Major changes were made to information systems, especially in the processing of the vast amount of data resulting from this massive deployment.
- Projects to improve operational maintenance activities are continuing. For Hydro-Québec TransÉnergie, the work load scheduling component was completed in 2013 and the planning component is ongoing. For Hydro-Québec Distribution, we began the scheduling and mobility components.
- We carried out several projects under the 2011–2014 corporate ICT security program, particularly the strengthening of ID and access management services.

BREAKDOWN OF IREQ INNOVATION EFFORTS IN 2013 (BY AMOUNT INVESTED)



MANAGING AGING ASSETS

A number of issues facing Hydro-Québec stem from the aging of its assets. Maintenance and refurbishment of existing facilities must be planned optimally, as must the construction of new ones. Equipment reliability, safety and long-term operability must be also ensured, and the service life of assets extended to spread out capital outlays. IREQ therefore dedicates considerable R&D resources to managing aging assets.

More than 50 projects in this area were ongoing in 2013, several in partnership with other companies in the power industry. Projects covered electricity generation, transmission and distribution under three broad themes: condition diagnostics and estimation of remaining service life; optimization of maintenance strategies and decision support tools; and use of the knowledge acquired to devise better methods for designing and refurbishing our facilities, and to guide research on new materials.

- In generation, the PréDDIT project focuses on developing predictive models and integrated diagnostics for the main causes of turbine degradation, including cracking and cavitation.

1

2

- In distribution, the ODÉMA project provides a decision support tool that assists distribution system managers in analyzing the economics of asset maintenance and replacement through a risk-based approach. Use of this data analysis tool during inspections of underground structures in 2013 led to a long-term prediction of replacement needs and an upward revision of the useful lives of the assets.

WIND POWER AND OTHER RENEWABLES

Playing an active role in the deployment of Québec wind power, Hydro-Québec has directed IREQ to conduct research on the integration of this variable energy resource and on new sources of renewable energy.

- For Hydro-Québec TransÉnergie, we completed the SIRE project, which consisted in simulating and studying different scenarios of wind generation brought onto the Hydro-Québec grid and assessing the impacts on frequency control reserves, circuit breaker operation, generating unit start-ups and shutdowns, etc.
- With Hydro-Québec Production and Hydro-Québec TransÉnergie, we continued to develop a method of calculating wind generation more accurately. The work will help maximize the value of wind power in Québec's energy mix and optimize the business risk linked to our commitments due to the presence of a variable energy source.
- Development proceeded on tools and models for simulating wind farms and turbines in order to establish measures for ensuring reliable interconnection of wind facilities.
- We continued to work with Hydro-Québec Distribution on two pilot projects testing the combined use of wind and diesel to supply off-grid systems.
- We pursued our study of the operation, potential and applications of emerging renewables.

After a preliminary Québec-wide assessment of geothermal potential, our researchers targeted a number of regions of special interest: Mauricie, Gaspésie, Îles-de-la-Madeleine and Nunavik. A three-year scientific collaboration agreement was signed with INRS-ETE, the water, earth and environment centre of the Institut national de la recherche scientifique du Québec, to pursue the research and validate results for those regions.

We continued a project for evaluating a precommercial demonstration unit of a photovoltaic concentrator on the IREQ site. In 2013, the Québec proponent responsible for developing the technology completed the first of two prerequisite prototyping phases. The second prototype is scheduled for start-up in early 2014.

ENERGY STORAGE AND CONVERSION

In 2013, IREQ continued its research, design and development efforts and the licensing of patents related to advanced battery materials for use in electric vehicles and storage applications.

Ongoing work relates to the physical components (powders and solvents) of high energy and power density lithium-ion batteries. Greener than conventional batteries, the storage solutions developed at IREQ are also much safer and perform much better. Again this year, our work yielded technological advances that garnered much interest (for more information, see Innovation serving ground transportation on page 37).

OPEN INNOVATION

For its research work, IREQ continued its collaboration with universities, public and private research organizations, and industry, following a partnering approach that increasingly takes the form of strategic alliances.

■ In 2013, Hydro-Québec contributed $6.5 million to Québec universities and college centres for the transfer of technologies (CTTTs), in research partnerships and contracts and in funding for 17 research chairs.

■ With researchers from the Ouranos consortium and key company players, we reviewed the areas of research related to company activities that could be impacted by climate change. As a result, we broadened the scope of our studies and began analyzing ways of adapting to the projected changes.

■ In 2013, we forged over 40 partnerships or collaborative arrangements with industry players and public and private research groups inside and outside Québec.

□ With Irkutskenergo, a subsidiary of Russia's largest independent power producer EuroSibEnergo, we entered into a two-year strategic cooperation agreement on R&D projects in hydropower generation and power transmission.

□ We continued the work initiated in 2012 with IBM (U.S.) and energy companies Alliander (Netherlands) and DTE Energy (U.S.) to create the Smarter Energy Research Institute.

□ We entered into a partnership with IBM to develop a commercial version of a simulator developed at IREQ to study the impacts of connecting wind energy resources to the grid. The tool will also be used to evaluate the impacts of electric vehicle charging on the power grid.

■ IREQ set up a line robotics program designed primarily to promote progress in line robotics expertise and to commercialize products and services in that area. It will also strengthen the network of industrial partners for joint financing of research projects and development of business opportunities related to existing products. Hydro-Québec will thus benefit from the best tools available for the robotic inspection and maintenance of its transmission lines.

■ In 2013, IREQ acquired new research, test and validation equipment:

□ An in situ microscope for studying chemical reactions in real time

1 Transmission equipment installed near Poste-des-Montagnais airport.

2 With technician Guy Pichette watching closely, technician Raynald Martel climbs down into a manhole in the IREQ underground cable test area.

3 The inauguration ceremony for the new transmission system simulator was held at IREQ in November 2013.

□ Robotic units for spraying high-velocity oxygen fuel (HVOF) coatings, which protect against wear, corrosion and erosion, thus slowing the aging of materials and extending service life

□ New equipment at the power system simulation laboratory, including a leading-edge IT network, supercomputers, and compute and data storage servers

□ An underground distribution system built near the distribution test line on the IREQ site and used to test various types of equipment under operating conditions similar to those in Hydro-Québec underground systems. The test bench is also hooked up to a lithium-ion battery pack (a product of our work on energy storage) and to a diesel generator.

GROUND TRANSPORTATION ELECTRIFICATION

A number of initiatives illustrate Hydro-Québec's commitment to ground transportation electrification, a forward-looking solution for reducing CO_2 emissions. Technological breakthroughs and business ventures by the company in this area, along with its active participation in the drive to deploy the public charging network, are prime examples. As a recognized world leader in research on battery materials and electricity generation, transmission and storage, Hydro-Québec's research institute, IREQ, is contributing to the commercialization of the resulting new technologies and innovative products.

ROAD TRIALS AND CHARGING INFRASTRUCTURE

- The Electric Circuit, Canada's first public charging network, gained ground in 2013, with over 245 charging stations now installed in 14 of Québec's administrative regions. Since the Electric Circuit was inaugurated in March 2012, the five founding partners—Les Rôtisseries St-Hubert, RONA, METRO, the Agence métropolitaine de transport (AMT) and Hydro-Québec—have been joined by more than 50 new partners.
- In April, the second round of bidding to supply charging stations was won by AddÉnergie Technologies, whose stations are 100% made in Québec. The management systems for the new and existing stations are compatible.
- During the summer, Hydro-Québec started installing charging stations in its parking areas.
- The Ville de Montréal joined the Electric Circuit on September 12; it will install 80 charging stations.
- On September 28, the Québec–Vermont Electric Charging Corridor was inaugurated, with 31 charging stations available along the drive between Montréal and Burlington.
- The first 400-volt fast-charge station, installed in the parking lot of the St-Hubert restaurant in Boucherville, is now part of the Electric Circuit for members desiring a quicker charge.
- In November 2013, Hydro-Québec released the results of the electric vehicle trial program conducted in Boucherville from December 2010 to June 2013. The pilot project, the largest of its kind in Canada, consisted in assessing all-electric vehicle performance under a wide range of conditions, particularly in winter. The city car used, the Mitsubishi i-MiEV, proved to be fully suited to the climate in Québec throughout the year.
- During the International Electric Vehicle Symposium & Exhibition in Barcelona (EVS27), the organizers announced that EVS29 will be held in Montréal in June 2016. Hydro-Québec will act as one of the event's main sponsors and collaborate in its organization.

PUBLIC TRANSIT

Hydro-Québec pursued its commitment to public transit electrification by providing technical and financial support for feasibility studies conducted by public transit authorities.

- In 2013, Hydro-Québec contributed to a feasibility study on electric taxis, partnering with the Comité provincial de concertation et de développement de l'industrie du taxi and two Québec government departments, Transports and Ressources naturelles.
- Hydro-Québec continued its collaboration in a pilot project and two other feasibility studies with the proponents of the following electrification projects: Clic carpooling with Chevrolet Volts – Société de transport de Laval and Agence métropolitaine de transport; a streetcar line linking Québec and Lévis – Réseau de transport de la Capitale and Société de transport de Lévis; Montréal trolleybuses – Société de transport de Montréal.
- More detailed studies were initiated under the project to electrify the Boulevard Saint-Michel corridor in Montréal. The project was announced in October, in the Québec government's economic policy "Putting Jobs First," and in November, as part of its transportation electrification strategy.
- In 2013, the Société de transport de Laval (STL) tested the first 12-metre all-electric bus in North America under a pilot project conducted along STL bus routes, first without and then with passengers. Tests focused on bus battery range under real-world conditions and charging time.

Previous page
Under the City Mobility program, Nova Bus electric buses equipped with TM4's SUMΦ HD powertrain will join the Montréal fleet. TM4 is a subsidiary of Hydro-Québec.

This page
A driver charging her car at an Electric Circuit service point.

ELECTRIC MOTORS

- In September 2013, TM4 unveiled its new powertrain for heavy vehicles (trucks and buses), the SUMΦ MD, which not only performs better but integrates more readily since it adjusts to the vehicle's differential. Upcoming versions of SUMΦ MD will be designed for a wide range of vehicles and different motor systems: all-electric, parallel hybrid and series hybrid. The new powertrains are well suited to applications requiring very high torque from a light, compact system.
- During its first year on the market, the SUMΦ HD powertrain was selected by a dozen customers in a number of countries, including China. The system was developed for the electric bus of the future as part of the *Québec Research and Innovation Strategy 2010–2013*.
- In summer 2013, Prestolite E-Propulsion Systems (PEPS)—a joint venture set up by TM4 and Prestolite Electric Beijing, the leading manufacturer of heavy-vehicle alternators and starters for the Chinese market—inaugurated a plant to manufacture electric motor systems, including SUMΦ powertrain motors, for trucks, buses and heavy machinery destined for Asian markets.
- In the past two years, over 25 automakers in 15 countries have ordered MΦTIVE systems for light commercial and passenger vehicles. New models of powertrains are now under development, some under a partnering agreement with Bombardier Recreational Products, and will join the MΦTIVE line in 2014.

INNOVATION SERVING GROUND TRANSPORTATION

Hydro-Québec's research institute, IREQ, plays a major role in battery material research, design and development, and in the commercialization of related patents. Its work includes research on the physical components (powders and solvents) of batteries for land transportation and other energy storage applications.

- Hydro-Québec signed two agreements with Arkema Group of France, a leader in specialty chemicals and high-performance materials. The first gives Arkema a licence to manufacture fluorinated lithium salt and molten salts (ionic liquid) for electrolytes—materials developed by IREQ. The second provides for a two-year joint R&D project to develop safe electrolytes for lithium-ion batteries.
- Hydro-Québec renewed its agreement with the Japanese company SEI for a three-year period. Under the initial agreement, four patents were filed jointly. Hydro-Québec and SEI also signed a commercialization agreement for their new patents on top-performance materials for lithium-ion battery electrodes.
- Hydro-Québec granted two licences to the U.S. firm Boulder Ionics, based in Colorado, for the manufacture and sale of ionic liquids for battery electrolytes.
- Under a three-year agreement with the Canadian firm Grafoid Inc., IREQ continued development of new applications related to graphene in lithium-ion batteries. A patent application was filed after just six months of work.
- IREQ continues its collaboration in developing high-energy-density technology with the Lawrence Berkeley National Laboratory (U.S.) under a U.S. Department of Energy R&D program.
- At the request of Hydro-Québec Distribution, IREQ equipped a hybrid bucket truck with lithium-ion batteries to replace the lead-acid ones, which were delivering less-than-satisfactory performance. The goals were to reduce vehicle weight and to increase boom operation time in electrical mode. In 2014, IREQ will install lithium-ion batteries in the Distributor's four other hybrid bucket trucks.
- IREQ continues its test program on vehicle-to-grid (V2G) and vehicle-to-home (V2H) systems. The test vehicle will be equipped with Québec technology—a key factor for Hydro-Québec—including IREQ-developed battery materials.

Sustainability is second nature at Hydro-Québec, as well as a discipline applied to the way we work. The company endeavors to uphold environmental, social and economic best practices in all its spheres of operation. This effort is bolstered by investments in projects that directly benefit all Quebecers. Through precisely targeted programs, we encourage our customers to take up the torch of sustainability in their own communities. We also offer communities incentives to get involved in cultural and environmental projects. Sustainability forms the foundation of our R&D activities, which we carry out with industrial, university and scientific partners. In short, Hydro-Québec is a key link in a chain of actors working to promote sustainability throughout Québec.

Above
Annual campaign to estimate the number of salmon smolts migrating downstream in the Rivière Romaine.

Next page

1 Jeanne-Marce Germain, Innu assistant technician, and archaeological technician Audrey Woods working on digs in the area of Romaine-4.

2 The interpretation centre at Beauharnois generating station was revamped in 2013.

MAINTAINING A HIGH-QUALITY ENVIRONMENT

At Hydro-Québec, we strive to protect the environment in all our operations. Each of our development projects includes a specific environmental component that involves first assessing impacts with the parties concerned and then developing measures to be taken to prevent, mitigate or compensate for those impacts. Our approach is comprehensive; it encompasses the impact assessment and adjustment of the project according to the results, obtaining the necessary government authorizations, harmonious integration of the facilities into their surroundings, environmental compliance monitoring during construction, measures to protect the air, water, soil and biodiversity, site restoration and follow-up studies on the mitigation measures. Other measures, such as recycling, sustainable consumption and vehicle fleet management with a view to energy efficiency, are practised throughout the company. In addition, we participate in joint social development projects with the communities where we are present.

- Hydro-Québec was ranked among the 2013 Best 50 Corporate Citizens in Canada—and second among public utilities—on the basis of environmental, social and governance criteria, by *Corporate Knights Magazine*. Corporate Knights is a company that promotes a responsible business approach based on the principles of sustainable development.
- The post-construction public consultation for the Eastmain-1-A/Sarcelle/Rupert project took place in November 2012. This was a first in Québec. Hydro-Québec participated along with its Cree partners. The provincial review committee (COMEX) plans to publish its report on this consultation in the first quarter of 2014.
- As part of the Romaine project in the Côte-Nord region, Hydro-Québec is establishing a baseline for the area and carrying out various environmental measures. Here is an overview of those applied in 2013:

1 2

- Steps to manage the beaver population along the Route de la Romaine continued. This program involves dismantling beaver dams, relocating colonies and trapping animals to protect crossings that are most threatened by the rodent's activities.
- The people of Minganie were surveyed to monitor impacts on their households and communities, and determine their concerns and expectations with regard to the project. Another survey will focus on the project's impacts on the activities of land users.
- During brook trout fishing season (April to September), fishing by workers living at Murailles and Mista workcamps was monitored. Société Ishitassinu distributed declaration forms for counting the workers' catches in the various water bodies. It is working with Québec's Ministère du Développement durable, de l'Environnement, de la Faune et des Parcs (MDDEFP) to manage wildlife resources in an area that covers 2,071 km² and contains the two workcamps.

■ In conjunction with the MDDEFP, Hydro-Québec initiated studies to determine the Romaine project's impacts on the golden eagle, a species designated vulnerable in Québec. In June, a golden eagle that frequents the Romaine-3 sector was tagged with a satellite transmitter. The device will record the raptor's GPS position, altitude, speed and direction of movement on an hourly basis over a three- to five-year period. This telemetric monitoring will provide insight into habitat use before and after reservoir impoundment.

■ A Hydro-Québec contest aimed at improving schoolyards and organized by the Fondation Paul-Gérin-Lajoie (P.G.L.) allowed the École des Vallons de Saint-Paulin, in the Mauricie region, to inaugurate its new sports facilities—including a climbing wall—in March. The $12,000 prize is intended for the purchase and installation of playground equipment or enhancement of a schoolyard's natural environment. The winning school's name was drawn from among the 453 Québec schools that took part in the 20th edition of the *Dictée P.G.L.* dictation project.

■ For the second year in a row, a group of 30 employees joined in a volunteer effort in May to clean up the ditches and roadside along Route 389 between Baie-Comeau and Jean-Lesage generating station (formerly Manic-2) in the Côte-Nord region. During a half-day's work on a stretch of about 10 kilometres, they collected some 100 bags of garbage and handed them over to the Manicouagan territory environment team, which organized the cleanup. About 20 of the bags were filled with recyclables that will be processed according to recognized environmental practices.

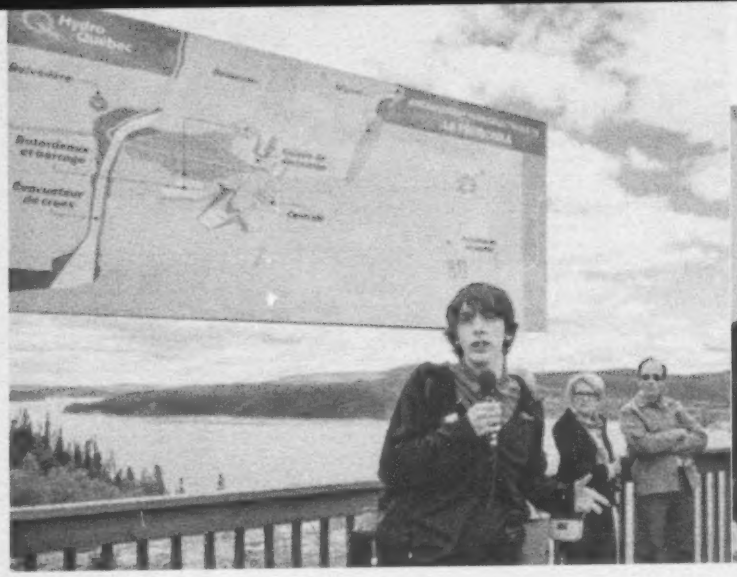
■ Hydro-Québec's RECYC-FRIGO program passed a milestone in July. Since it was launched in 2008, 400,000 energy-guzzling appliances have been collected throughout the province. The program's goal is to enable customers discarding old refrigerators and freezers to reduce their electricity bills. The appliances are picked up and then, within days, recycled in keeping with current environmental standards.

■ Hydro-Québec published a summary of environmental knowledge of line and substation projects gained over the period from 1973 to 2013 (in French only). This unique compilation contains 20 or so synopses of environmental studies on power lines and substations, and the knowledge gained from more than 1,500 studies conducted over a period of 40 years.

■ In 2013, we replaced 131 of our light-duty vehicles (28% of vehicles replaced during the year) with more energy-efficient models.

■ We systematically decontaminate and recycle insulating oil used in our equipment. In 2013, our rate of reuse was 81%, which is comparable to previous years.

■ In June, the Interuniversity Research Centre for the Life Cycle of Products, Processes and Services (CIRAIG) produced two life-cycle analyses: one on distributed electricity generation and the other on small-scale thermal generation. These studies, conducted as part of Hydro-Québec's participation in the activities of CIRAIG's International Life Cycle Chair, were designed to compare various distributed generation systems with one another and with Hydro-Québec's grid.



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STANDING IN SOLIDARITY WITH QUEBECERS

Hydro-Québec is receptive to the needs of the communities in which it operates, and it supports many initiatives that are in the public interest. Community development is carried out to preserve or enhance the natural environment, build community facilities, promote culture, provide communities with services and create tourist attractions, among other objectives.

■ In 2013, the Fondation Hydro-Québec pour l'environnement allocated $759,900 to 16 projects in seven of the province's administrative regions. Following are a few examples:

□ The Corporation d'aménagement et de protection de la rivière Sainte-Anne (CAPSA) developed a linear park along the banks of this river in Saint-Raymond, near the city of Québec, enhancing a natural environment that covers 24 hectares. Residents and visitors now have access to a 1-km trail with numerous interpretation panels, a footbridge, three scenic lookouts, a rest area on the beach and two reception areas: one for the dock at Rue Saint-Hubert and the other beside the Jacques Cartier–Portneuf bicycle path. In summer, three floating docks are added.

□ The beach in the Pointe-aux-Outardes nature park in the Côte-Nord region was restored by the Comité ZIP de la rive nord de l'estuaire, in partnership with the Corporation du Parc Nature de Pointe-aux-Outardes. This project aims to protect and enhance this unique and sensitive area. To allow pedestrian access to the site without undermining its environmental integrity, 250 m of trail were improved, vegetation was planted to block off three unauthorized entry points, and two stairways were built down to the beach. Three interpretation panels were installed to inform visitors about shore erosion.

■ In 2013, the Integrated Enhancement Program (IEP) supported a number of initiatives in various locations. Under the IEP, Hydro-Québec grants funding equivalent to 1% of the initially authorized value of a power line or substation project to the host communities. Here are two such initiatives:

□ Following construction of the tie line for Saint-Robert-Bellarmin wind farm, the municipality of Saint-Robert-Bellarmin received $92,500. The funding was used to create an intergenerational play space that will promote physical activity: the skating rink was expanded, play structures were installed and four-season access to the facilities was improved.

□ Following the construction of the tie line for Montagne-Sèche wind farm, the municipality of Cloridorme received $227,000. This money went toward renovating the town hall and fire station, and ensuring access for people with reduced mobility. The municipality of Petite-Vallée, which received $39,000, chose to improve municipal and tourist infrastructures, including the town park and Mont-Didier hiking trail.

■ A total of $18.6 million in donations and sponsorships was granted to support organizations and activities throughout Québec. For further details, see our Web site at **www.hydroquebec.com/publications/en/donation-sponsorship**.

■ Hydro-Québec was awarded the Prix Arts-affaires de Montréal in the Large Enterprise category, mainly for its 20-year commitment to the Théâtre du Nouveau Monde. This award recognizes the company's contribution to the vitality of Montréal's artistic and cultural life, and its efforts to promote works by Montréal creative artists, both here and abroad.

SUSTAINABLE DEVELOPMENT ACTION PLAN 2013–2016

Hydro-Québec published its Sustainable Development Action Plan 2013–2016 *in March. The actions described continue efforts laid out in the previous plan. They contribute to the implementation of Québec's* Government Sustainable Development Strategy, *the strategy to ensure the occupancy and vitality of territories, and Québec's* Agenda 21 for culture.

A formal accounting of Hydro-Québec's performance with respect to the Action Plan will be presented in the *Sustainability Report 2013*.

SUSTAINABLE DEVELOPMENT ACTION PLAN 2013–2016

	Action	Indicator	Results as at December 31, 2013
1	Build hydropower projects	Cumulative capacity made available by the Romaine project	0 MW
2	Increase output and capacity gains at existing hydroelectric generating stations	Cumulative gains in available peak capacity	0 MW
		Cumulative gains in average annual output	0 GWh/year
3	Continue energy efficiency initiatives	Recurring energy savings	8.5 TWh[a]
4	Continue to help low-income customers	Number of payment arrangements[b] with low-income customers	66,913
5	Contribute to the reduction of transport-related GHG emissions and collaborate in the electrification of transportation in Québec	Atmospheric emissions from the light-vehicle fleet	23,209 t CO_2 eq
		Number of new charging stations and number of regions covered by The Electric Circuit	105 charging stations 12 regions
6	Contribute to the implementation of Québec's policy for ecoresponsible government	Number of product purchasing guides that include sustainable specifications	1
7	Inform and educate employees about sustainability and the company's approach	Percentage of new hires having been informed about sustainable development	100%
8	Preserve and enhance biodiversity in transmission and distribution line rights-of-way	Percentage of distribution system vegetation control operations per year that include measures for enhancing biodiversity	96%
9	Publicize the knowledge acquired through Hydro-Québec environmental studies	Number of documents published on the Web	19
10	Continue to protect and enhance the company's built and technological heritage	Number of good-practice guides produced and disseminated	0
		Number of annual visits to facilities and jointly operated sites	130,615

Action associated with implementation of the strategy to ensure the occupancy and vitality of territories.

Action associated with implementation of Québec's *Agenda 21 for culture*.

a) Savings achieved since implementation of the Energy Efficiency Plan in 2003.

b) Including long-term arrangements.

1 Some 1,600 visitors toured Péribonka generating station in summer 2013 as part of the celebrations marking the 175th anniversary of the Saguenay–Lac-Saint-Jean region. Here, tour guide Pierre-Olivier Gaumond explains the purpose of the spillway.

2 Joanne Chevrier, Manager – Sponsorships and Special Projects, accepts the Prix Arts affaires de Montréal in the Large Entreprise category, on behalf of Hydro-Québec. Among other things, this award recognizes the company's 20-year commitment to the Théâtre du Nouveau Monde.

3 For environmental follow-up of the Romaine project, extensive oceanographic research was conducted at the river's mouth.

4 A golden eagle was caught in the area of Romaine-3 and tagged with a satellite transmitter that will record a multitude of data on how it uses its territory. Golden eagles are designated as a vulnerable species.

A MAJOR FORCE IN THE ECONOMY

Hydro-Québec plays a leading role in the Québec economy, with some 20,200 employees and close to 150 places of business located throughout the province. Every year, we invest in the development, modernization and long-term operability of the power system, as well as our telecommunications network, IT equipment and real estate holdings. In 2013, these investments totaled $4.3 billion. In addition, we work with private- and public-sector stakeholders in our innovation initiatives.

Recognized worldwide for its expertise in large power systems, Hydro-Québec promotes Québec expertise in a number of national and international energy organizations. We also participate in many international cooperation and development initiatives.

Above
Customer services representative Marylène Asselin uses a software program to run a diagnostic and improve the online support she provides to a customer.

Next page
1 Site manager Christine Patoine, with Christine Lanvière, assistant contract administrator, on the Romaine-2–Arnaud line construction site.

2 Powerhouse mechanic Carl Lalande and chief mechanic Sylvain Lalande. Both father and son were involved in performing maintenance on a unit at Carillon generating station.

3 Engineers Michel Paradis and Daniel Gourde at work in the drainage tunnel for one of the units at Sarcelle powerhouse.

THE HUMAN RESOURCES FUNCTION

Human resources are the greatest asset of a public utility such as Hydro-Québec. We promote a healthy and attractive work environment that encourages people to give the best of themselves and contribute to the company's success. To meet this challenge, we have adopted a framework that encompasses our objectives in four main areas: labor force, work environment, leadership and organization.

LABOR FORCE

We have deployed various strategies and measures to ensure that Hydro-Québec has the personnel it needs to achieve its business objectives.

- Of the 2,762 employees eligible for retirement in 2013, 1,209 left the company, compared with 1,140 out of 2,918 in 2012. Altogether, 5,779 employees have retired in the last five years. We have taken steps to preserve and renew the know-how deemed essential for management positions and all trades.
- We instituted a process designed to facilitate employee mobility in order to ease the impacts stemming from major changes within the company.
- In 2013, we devoted 2.8% of total payroll to training programs, and 13,892 employees took part in at least one training activity. We stepped up our initiatives in this area to meet the needs of the various administrative units, while also optimizing our organizational methods. Training costs declined substantially as a result of efficiency gains and improved performance.
- We are maintaining our efforts to bring the composition of our workforce in line with the Québec labor force. In 2013, we hired 129 new employees belonging to one or more of the five groups targeted by the *Act respecting equal access to employment in public bodies*. We continued to post job offers on the Web site

of the Comité d'adaptation de la main-d'œuvre pour personnes handicapées to keep people with disabilities informed about job opportunities. In addition, entrepreneurship grants were handed out during the Semaine québécoise des personnes handicapées.

- Hydro-Québec is a founding partner of the Institute of Electrical Power Engineering (IEPE). In 2013, we awarded 15 Jean-Jacques-Archambault general scholarships and 36 traveling scholarships to IEPE students, for a total contribution of $75,200. In all, 177 IEPE graduates have joined the company's ranks since the Institute was established in 2001.
- We offered 243 internships to university students in undergraduate and graduate programs, and welcomed 32 college-level trainees, most of them enrolled in civil engineering. Over the past five years, the company has provided approximately 1,800 internships altogether.
- At December 31, 2013, Hydro-Québec had a total of 20,243 permanent and temporary employees, which is 2,258 fewer than in 2011. There were 19,692 people on the payroll.

WORK ENVIRONMENT

Hydro-Québec has taken various initiatives to maintain good labor relations in a safe, healthy work environment.

- In 2013, seven of the eight collective agreements that govern working conditions for Hydro-Québec employees, 84.5% of whom are unionized, were renewed for a five-year period. Negotiations with the Syndicat des technologues will begin in 2014 after that union's collective agreement expires.
- According to the company-wide survey *Écoute du personnel*, which had a 63% response rate, the overall employee commitment index was 61% in 2013—a year marked by change and restructuring. In light of these results, new activities to foster a culture of commitment were carried out and will continue in 2014. In addition, we ran an awareness campaign throughout the year to promote a healthy and attractive work environment. These initiatives highlighted Hydro-Québec's efforts to prevent discrimination and harassment, and to boost employee commitment, which is a driving force behind the company's performance and success.
- Taking industry standards and feedback from our specialists into account, we look for integrated solutions designed to maximize work attendance in a safe, healthy environment. Here are the main thrusts of our efforts in 2013:
  - Optimizing the operations of some 125 joint health and safety committees is important because these committees play a major role in maintaining a safe, healthy work environment. Members of joint committees, management teams and unions were consulted and problematic situations were analyzed in detail, leading to a number of initiatives:
    - developing committee members' skills
    - offering specialized health and safety support
    - providing tools and job aids

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□ Work attendance was improved, in part through integrated absenteeism management. The rising costs related to presenteeism and absenteeism are a source of growing concern to the company. The measures taken in 2013 include:

- improving management practices
- optimizing support services to managers
- establishing mechanisms for targeting issues related to employees' return to work and ensuring a rapid, carefully planned reintegration
- strengthening support measures for employees' return to work

In 2013, the frequency of work-related accidents was 2.62 per 200,000 hours worked.

LEADERSHIP

In the current business environment, managers must be able to make their employees aware of the company's vision and the issues involved in sustainable performance. We introduced a two-year action plan to bolster their leadership capabilities.

■ We reviewed and optimized our management leadership development programs to offer greater flexibility in the choice of career paths.

■ In 2013, 160 supervisory managers completed the leadership development program, while 130 supervisory managers and middle managers began it.

ORGANIZATION

Work organization, support structures and the definition of responsibilities play a key role in the strong performance of the company and its employees. To stabilize operations quickly, limit the impacts of change and ensure that employees have the conditions they need to do their jobs, Hydro-Québec's organization must evolve as smoothly as possible.

In recent years, we have carried out several projects to improve our efficiency. A number of organizational structures were overhauled and work processes adjusted. These major changes pose a considerable challenge to employees' adaptability. To limit their impacts, we make substantial efforts to reassign employees who find themselves without a position. As a result, more than 580 such employees were given new assignments in 2013.

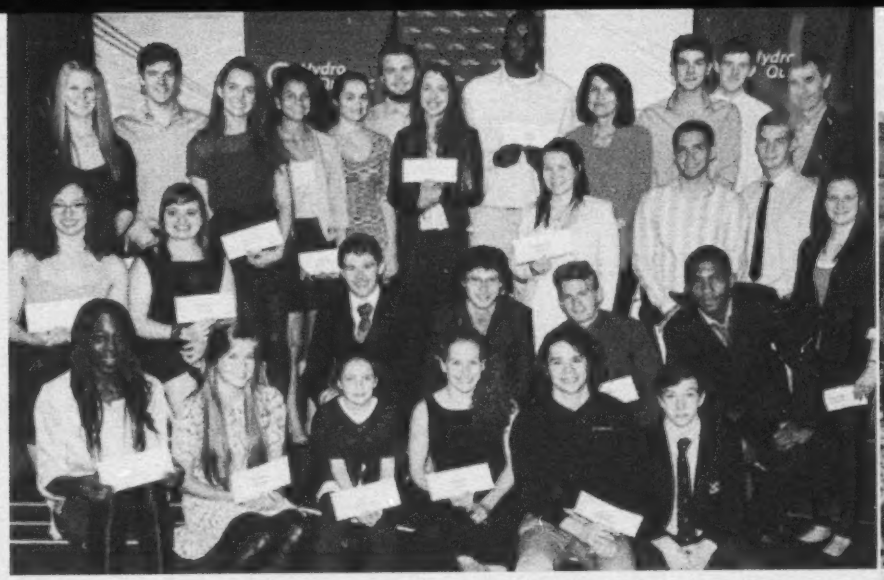
HYDRO-QUÉBEC'S CONTRIBUTION TO THE QUÉBEC ECONOMY

	2013	2012
Dividend ($M)[a]	2,207	645
Public utilities tax ($M)	245	252
Water-power royalties ($M)	669	617
Municipal, school and other taxes ($M)	81[b]	124
Guarantee fees paid to the shareholder for debt securities ($M)	200	197
Percentage of the value of goods and services procured from Québec-based companies	95	94
Contributions and commitments under the Integrated Enhancement Program ($M)[c]	2.8	2.5

a) Under the *Hydro-Québec Act*, the dividend cannot exceed the distributable surplus, which corresponds to 75% of net result.

b) $33 million in municipal taxes, $3 million in school taxes and $45 million in other taxes, including $30 million under the *Act respecting Energy Efficiency and Innovation*.

c) Under the company's Integrated Enhancement Program, communities affected by new transmission projects receive grants equivalent to 1% of the value initially approved for facilities covered by this program.



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A DRIVING FORCE FOR REGIONAL DEVELOPMENT

Hydro-Québec is a major player in the Québec economy. Through its many activities—operation of generating stations, power lines and substations, construction and refurbishment of facilities, purchases from independent power producers, procurement of goods and services—the company contributes to the vitality of all the province's regions, even the most remote. Every year, its spending and investments amount to billions of dollars and generate thousands of jobs. The past year was no exception.

- In 2013, $718 million (financing excluded) was invested in the Romaine complex generating facilities. Employment totaled 1,520 person-years, with Côte-Nord and Innu workers accounting for 37% and 9% of the labor force, respectively. Contracts awarded in the region totaled $126 million. From 2013 to 2016, the peak labor force will be in excess of 2,000 workers.
- Procurement of goods and services inside and outside Québec totaled $3,533 million[a] in 2013, compared with $3,011 million[a] in 2012:
  - $1,305 million for the purchase of goods
  - $25 million for rentals and leasing
  - $1,818 million for specialized services and other work
  - $385 million for professional services
- Goods and services procured from Québec-based companies totaled $3,370 million, or 95% of all procurement.
- The number of jobs in Québec supported by our overall procurement of goods and services is estimated at 19,000, including 12,700 direct jobs.
- In 2013, our hydroelectric projects sustained 3,500 construction jobs,[b] not including Hydro-Québec employees.

PROCUREMENT OF GOODS AND SERVICES ($B)

2013	2012	2011	2010	2009
3.5	3.0	2.9	3.0	2.9

1 Analyst Lysette Dumouchel, Benoit Comtois, Manager – Property Inventory and Expertise, and real estate advisor Gina Hébert consult a development plan dating from 1934.

2 In 2013, seven of the eight collective agreements that govern working conditions for Hydro-Québec employees were renewed for five years.

3 Recipients of Hydro-Québec scholarships awarded in 2013 by the Fondation de l'athlète d'excellence du Québec.

4 Powerhouse mechanic Suzanne-Ghézabelle Poirier does welding work at the Shawinigan machine shop.

5 Power system electrician Jasmin Mowatt at the control panel for the air/oil pressure system of a unit at Sarcelle powerhouse.

a) Excluding procurement by Société d'énergie de la Baie James.

b) Including projects carried out by Société d'énergie de la Baie James.

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1 A group of workers employed by an Aboriginal contractor, at the Romaine-3 jobsite.

2 Senior agent Sophie Charron and mechanic Denis Vaillancourt at the Baie-Comeau vehicle maintenance shop.

INTERNATIONAL INFLUENCE

■ Hydro-Québec is a member of the Global Sustainable Electricity Partnership, which brings together 14 of the world's largest electric utilities with a view to promoting sustainable development in the energy industry. Among its 2013 activities, we took part in a workshop on best practices for large hydropower development.

■ The company also belongs to the World Energy Council, which is chaired by Hydro-Québec's Executive Vice President – Corporate Affairs and Secretary General. This gives Québec a high profile among energy stakeholders around the world and has earned it an undeniable position of leadership in the industry.

■ Hydro-Québec is represented, as well, on the Board of Directors of the International Hydropower Association, a non-governmental organization that promotes the benefits of hydropower as a renewable and sustainable energy source. During the year, we contributed to the activities of strategic committees in such areas as sustainable development, the water-energy nexus, Aboriginal communities and communications.

■ CIGRÉ Canada held its annual conference from September 9 to 11 in Calgary, under the theme *Modernizing the Grid to Better Serve Evolving Customer Needs*. Researchers from Hydro-Québec's research institute, IREQ, presented papers and organized a workshop on high-voltage equipment.

■ Finally, as in other years, Hydro-Québec experts and senior management participated in numerous technical exchanges and meetings with foreign companies and representatives of foreign governments.

REGIONAL SPINOFFS FROM HYDRO-QUÉBEC PROCUREMENT ($'000)[a]

Administrative region	Procurement of services[b]	Procurement of goods[c]	Total
Abitibi-Témiscamingue (08)[d]	14,757	11,468	**26,225**
Bas-Saint-Laurent (01)[d]	6,060	3,220	**9,280**
Capitale-Nationale (03)[d]	341,229	42,662	**383,891**
Centre-du-Québec (17)[d]	115,873	31,546	**147,419**
Chaudière-Appalaches (12)[d]	98,603	25,768	**124,371**
Côte-Nord (09)	155,952	6,674	**162,626**
Estrie (05)[d]	17,833	15,982	**33,815**
Gaspésie–Îles-de-la-Madeleine (11)[d]	9,341	674	**10,015**
Lanaudière (14)[d]	31,726	48,690	**80,416**
Laurentides (15)	65,968	15,011	**80,979**
Laval (13)	233,326	48,891	**282,217**
Mauricie (04)[d]	134,856	32,006	**166,862**
Montérégie (16)[d]	256,670	245,521	**502,191**
Montréal (06)[d]	507,560	630,082	**1,137,642**
Nord-du-Québec (10)	14,735	1,607	**16,342**
Outaouais (07)	2,911	1,137	**4,048**
Saguenay–Lac-Saint-Jean (02)[d]	180,881	21,235	**202,116**
Total	2,188,281	1,182,174	**3,370,455**

a) Amounts billed by suppliers located in the region, excluding procurement by Société d'énergie de la Baie James.

b) Specialized services, professional services and other work.

c) Purchases and rentals.

d) In 2013, contracts awarded under Hydro-Québec Distribution's calls for tenders for the supply of energy resulted in the following estimated regional spinoffs, in addition to the amounts shown in the table: Abitibi-Témiscamingue, $114 million; Bas-Saint-Laurent, $235 million; Capitale-Nationale, $239 million; Centre-du-Québec, $12 million; Chaudière-Appalaches, $27 million; Estrie, $30 million; Gaspésie–Îles-de-la-Madeleine, $110 million; Lanaudière, $2 million; Mauricie, $1 million; Montérégie, $15 million; Montréal, $236 million; Saguenay–Lac-Saint-Jean, $1 million.

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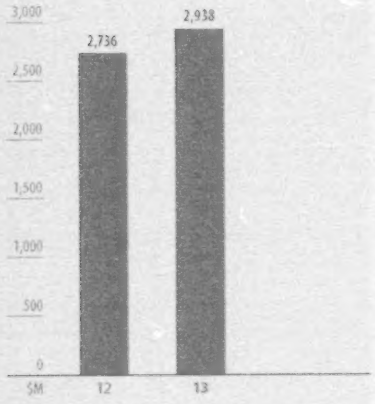
This Management's Discussion and Analysis should be read in conjunction with the consolidated financial statements of Hydro-Québec and the notes thereto. The financial information and tabular amounts presented herein are expressed in Canadian dollars, unless otherwise indicated.

This analysis, and especially the Outlook section, contains statements based on estimates and assumptions concerning future results and the course of events. Given the risks and uncertainties inherent in any forward-looking statements, Hydro-Québec's actual future results could differ from those anticipated. It should also be noted that certain financial and operating data for previous years have been reclassified to conform to the presentation adopted for the current year. Finally, the information contained herein takes into account any significant event that occurred on or before February 21, 2014.

RESULT FROM CONTINUING OPERATIONS



The **result from continuing operations** totaled $2,938 million, a $202-million increase over 2012 and the best result to date posted by Hydro-Québec for its continuing operations.

This favorable result is due to an increase in electricity sales and strict management of current operating expenses. Export volume increased somewhat thanks to a strong performance by the company's hydroelectric generating facilities and transmission system as well as the skillful deployment of sales programs. The company also benefited from slightly higher market prices, especially at year end, due to the cold spell that gripped North America. Revenue from electricity sales in Québec also increased, mainly on account of colder temperatures in 2013 than in 2012 and of higher demand. Furthermore, as a result of targeted initiatives at every level of the organization, the company was again able to absorb the increase in costs related to inflation, salary indexing and growth in operating assets, and still reduce current operating expenses. In this regard, it is worth noting that, in keeping with its commitments, Hydro-Québec reduced its salaried workforce by 2,285 employees over the 2012–2013 period, ending 2013 with 19,692 people on the payroll.

As mentioned above, the result from continuing operations increased by $202 million. On one hand, net electricity exports rose to $1,353 million in 2013, a $254-million increase over the $1,099 million recorded in 2012. On the other hand, electricity purchases from Rio Tinto Alcan decreased by $122 million. It should be remembered that Hydro-Québec had bought large quantities of electricity from Rio Tinto Alcan in 2012. These favorable items were partly offset by the deferred implementation of Hydro-Québec Distribution's rate adjustment, that is, the difference between the April 1 effective date of the rate adjustment and the recording of additional costs as of January 1. In 2013, the amplified effect of the deferred implementation of the rate adjustment had a negative impact of $91 million. In addition, Hydro-Québec TransÉnergie recorded a $42-million adjustment related to its 2013 rate case, mainly due to a reduction in the cost of debt, which decreased from 7.03% in 2012 to 6.53% in 2013, benefiting customers.

When the discontinued operations are factored in, the **net result** totaled $2,942 million in 2013, compared to $860 million the previous year.

In 2012, following the September decision to abandon the project to refurbish Gentilly-2 nuclear generating station and terminate nuclear power operations, Hydro-Québec had posted a $1,876-million negative **result from discontinued operations** that was mainly due to the accounting treatment of the facility's shutdown at the end of the year.

Revenue totaled $12,881 million in 2013, or $745 million more than the $12,136 million posted in 2012. Revenue from electricity sales amounted to $12,610 million, compared to $11,636 million the previous year: it increased by $643 million in Québec and by $331 million on markets outside Québec. Other revenue totaled $271 million, compared to $500 million in 2012.

Total expenditure amounted to $7,510 million, compared to $6,959 million in 2012. Efficiency gains achieved within the company again made it possible not only to fully absorb the impact of inflation and salary indexing, as well as the additional expenses resulting from the growth in operating assets, but also to reduce current operating expenses by $42 million. Among other things, these exclude the pension expense, which increased by $114 million, mainly because of the actuarial impact of the reduction in long-term interest rates on capital markets as at December 31, 2012, compared to December 31, 2011. Electricity and fuel purchases increased by $385 million on account of a $319-million rise in electricity purchases made by Hydro-Québec Distribution, mainly in the form of supplies from independent wind power and biomass energy producers as well as short-term purchases made on markets to meet occasional needs. A $65-million increase in short-term electricity purchases made by Hydro-Québec Production as part of its business operations outside Québec also contributed to the rise in electricity purchases. These factors were mitigated by a $122-million decrease in electricity purchases from Rio Tinto Alcan. Depreciation and amortization expense increased by $77 million. Water-power royalties increased by $53 million due to higher output and the indexing of the applicable rate. Finally, the recognition in 2012 of $49 million payable to the Québec government under the *Act to establish the Northern Development Fund* (formerly the *Act to establish the Northern Plan Fund*) resulted in a positive variance in 2013.

Financial expenses totaled $2,433 million in 2013, comparable to the $2,441 million recorded in 2012.

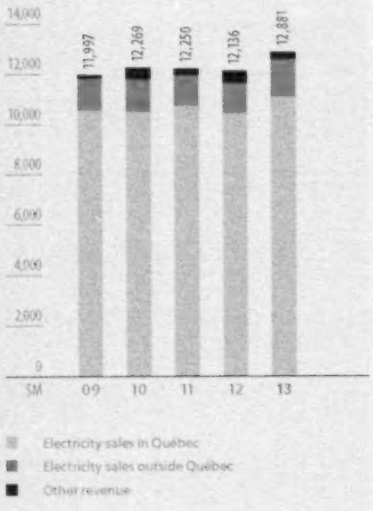
Return on equity from continuing operations was 14.6% in 2013, reflecting Hydro-Québec's good financial performance.

Cash flows from operating activities totaled $5.0 billion. They allowed the company, among other things, to pay the 2012 dividend of $645 million and to finance a large portion of its investment program, which reached $4.3 billion in 2013, compared to $3.9 billion in 2012.

The **dividend** for 2013 amounts to $2,207 million.

CONSOLIDATED RESULTS

REVENUE



The result from continuing operations amounted to $2,938 million in 2013, a $202-million increase over 2012.

Revenue totaled $12,881 million, compared to $12,136 million in 2012. Revenue from electricity sales increased by $974 million to $12,610 million. Sales in Québec accounted for $11,085 million of this amount, or $643 million more than in 2012. On markets outside Québec, revenue from electricity sales totaled $1,525 million, a $331-million increase. Other revenue amounted to $271 million, compared to $500 million in 2012.

The $643-million increase in revenue from electricity sales in Québec resulted mainly from the colder temperatures in 2013 than in 2012. Higher demand was also a factor, as were the rate adjustments of April 1, 2012 and 2013. Revenue from special contracts with certain large industrial customers increased by $78 million as a result of the positive impact of hedging operations related to exchange rates and aluminum prices.

The $331-million increase in revenue from electricity sales on markets outside Québec resulted from growth in Hydro-Québec Production's export revenue. This increase was due to volume growth as well as to market conditions, which were more favorable in 2013 than in 2012.

Other revenue totaled $271 million in 2013, a $229-million decrease compared to 2012 that is partly due to differences in the net amounts that Hydro-Québec is entitled to receive from customers or is required to pay to them in connection with such things as revenue variances related to climate conditions. It is also due to the $42-million adjustment recorded by Hydro-Québec TransÉnergie in relation to its 2013 rate case. This adjustment resulted mainly from the reduction in the cost of debt, which decreased from 7.03% in 2012 to 6.53% in 2013, benefiting customers.

Revenue variances related to climate conditions correspond to differences between Hydro-Québec Distribution's actual transmission and distribution revenue and the revenue forecasts established on the basis of the climate normal for rate case purposes. An amount of $42 million was recognized in this regard as payable to customers in 2013, compared to an amount receivable of $122 million in 2012, resulting in a negative change of $164 million stemming from the fact that temperatures were colder in 2013 than in 2012.

Total expenditure was $7,510 million, compared to $6,959 million in 2012.

Operating expenses amounted to $2,450 million in 2013, compared to $2,364 million in 2012. Efficiency gains achieved within the company again made it possible not only to fully absorb the impact of inflation and salary indexing, as well as the additional expenses resulting from the growth in operating assets, but also to reduce current operating expenses by $42 million. Among other things, these exclude the pension expense, which increased by $114 million, mainly because of the actuarial impact of the reduction in long-term interest rates on capital markets as at December 31, 2012, compared to December 31, 2011.

Electricity and fuel purchases totaled $1,568 million, a $385 million increase over 2012. This increase is due to a $319 million rise in electricity purchases made by Hydro-Québec Distribution from third parties, mainly from independent wind power producers, for $196 million, and biomass energy producers, for $57 million, as well as short-term purchases the division made on markets to meet occasional needs, for $71 million. It is also the result of a $65 million increase in short-term electricity purchases made by Hydro-Québec Production as part of its business operations outside Québec. Electricity purchases from Rio Tinto Alcan decreased by $122 million. It should be remembered that Hydro-Québec had bought large quantities of electricity from Rio Tinto Alcan in 2012.

Depreciation and amortization expense amounted to $2,492 million in 2013, an increase of $77 million over 2012 resulting from the commissioning of capital assets, including the three generating units at Sarcelle powerhouse and the advanced metering infrastructure.

Taxes were $1,000 million, compared to $997 million the previous year. The recognition in 2012 of $49 million payable to the Québec government under the *Act to establish the Northern Development Fund* resulted in a positive variance in 2013. On the other hand, water-power royalties increased by $53 million due to higher output and the indexing of the applicable rate.

Financial expenses totaled $2,433 million in 2013, comparable to the $2,441 million recorded in 2012.

When the discontinued operations are factored in, the net result totaled $2,942 million in 2013, compared to $860 million the previous year.

In 2012, following the September decision to abandon the project to refurbish Gentilly-2 nuclear generating station and terminate nuclear power operations, Hydro-Québec had posted a $1,876 million negative result from discontinued operations that was mainly due to the accounting treatment of the facility's shutdown at the end of the year.

	2013	2012
OPERATIONS AND DIVIDEND ($M)		
Revenue	**12,881**	12,136
Operating result	**5,371**	5,177
Result from continuing operations	**2,938**	2,736
Result from discontinued operations[a]	**4**	(1,876)
Net result	**2,942**	860
Dividend	**2,207**	645
BALANCE SHEETS ($M)		
Total assets	**73,110**	70,508
Property, plant and equipment	**59,077**	57,174
Long-term debt, including current portion and perpetual debt	**44,477**	43,524
Equity	**19,394**	18,982
FINANCIAL RATIOS		
Interest coverage[b]	**2.09**	2.02
Return on equity from continuing operations (%)[c]	**14.6**	14.6
Profit margin from continuing operations (%)[d]	**22.8**	22.5
Capitalization (%)[e]	**30.5**	30.6
Self-financing (%)[f]	**68.3**	55.4

a) The discontinued operations are related to the 2012 decision to abandon the project to refurbish Gentilly-2 nuclear generating station and to terminate nuclear power operations.

b) Sum of operating result and net investment income divided by interest on debt securities.

c) Result from continuing operations divided by average equity less average result from discontinued operations for the current year and the previous year and average accumulated other comprehensive income. For 2012 and 2013, average equity less average result from discontinued operations for the current year and the previous year and average accumulated other comprehensive income amounted to $18,729 million and $20,141 million, respectively.

d) Result from continuing operations divided by revenue.

e) Equity divided by the sum of equity, long-term debt, current portion of long-term debt, perpetual debt, borrowings and derivative instrument liabilities, less derivative instrument assets and sinking fund.

f) Cash flows from operating activities less dividend paid, divided by the sum of cash flows from investing activities, excluding net disposal or acquisition of short-term investments, and repayment of long-term debt.

Note: Certain comparative figures have been reclassified to conform to the presentation adopted in the current year.

CASH AND CAPITAL MANAGEMENT

OPERATING ACTIVITIES

Cash flows from operating activities totaled $5.0 billion in 2013, compared to $4.8 billion in 2012. These funds were mainly used to pay the dividend for 2012 and to finance a large portion of the investment program.

INVESTING ACTIVITIES

In 2013, Hydro-Québec invested $4.3 billion in property, plant and equipment and intangible assets including the Energy Efficiency Plan (EEP), compared to $3.9 billion in 2012. Of this total, $2.3 billion was invested in development projects and $1.9 billion in maintaining or improving asset quality, while $0.1 billion went to the EEP.

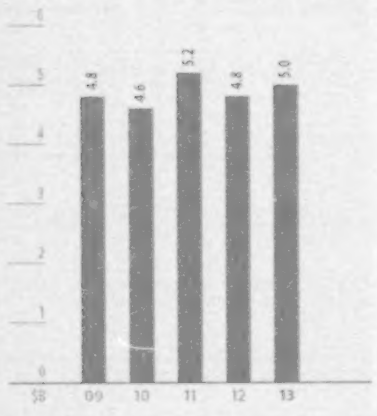
Hydro-Québec Production invested a total of $1,381 million in 2013, compared to $1,511 million in 2012. As expected, a large portion of this amount, $965 million, went to the division's major hydroelectric development projects, in particular the Romaine complex and Sarcelle powerhouse jobsites. The amounts allocated to ongoing asset maintenance and improvement totaled $416 million. For instance, refurbishment continued at Robert-Bourassa and Beauharnois generating stations and the Manicouagan complex.

Capital spending at Hydro-Québec TransÉnergie totaled $1,915 million in 2013. Of this amount, $998 million was used to connect new hydroelectric and wind power facilities to the grid and increase transmission capacity. Work continued to integrate the output from wind farms built in response to the call for tenders issued by Hydro-Québec Distribution in 2005 (2,000 MW), among others, and to connect Romaine-2 generating station (640 MW) as part of the expansion of the transmission system in Minganie. Investments of $917 million were made in asset sustainment, which mainly involved replacing equipment and modernizing facilities.

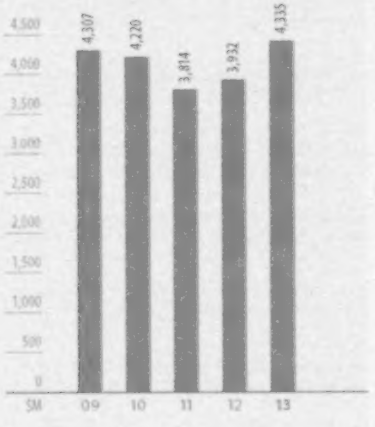
Hydro-Québec Distribution invested $769 million, mainly to handle its growing customer base, ensure the long-term operability of the distribution system and enhance service quality. An additional $113 million was allocated to the EEP.

Hydro-Québec Équipement et services partagés and Société d'énergie de la Baie James carry out engineering, construction and refurbishment projects for Hydro-Québec Production and Hydro-Québec TransÉnergie. In addition, Hydro-Québec Équipement et services partagés offers company-wide shared services that include procurement of goods and services, real estate management, document management and materials management, as well as management of food, accommodation and air and ground transportation services.

CASH FLOWS FROM OPERATING ACTIVITIES

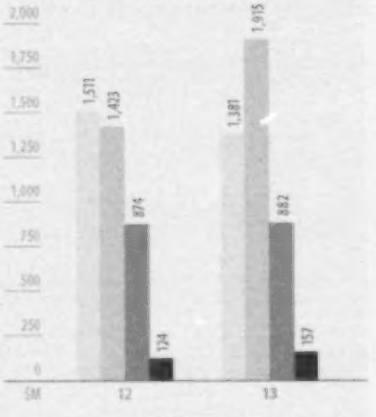


INVESTMENTS IN PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS[a]



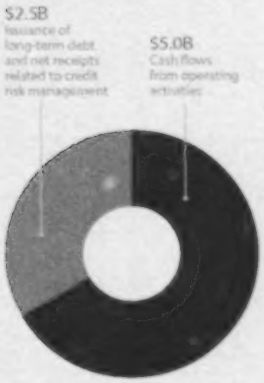
a) Including the Energy Efficiency Plan.

INVESTMENTS IN PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS[a] BY SEGMENT



a) Including the Energy Efficiency Plan.

SOURCES OF FUNDS IN 2013


$2.5B
Issuance of long-term debt and net receipts related to credit risk management
$5.0B
Cash flows from operating activities

USES OF FUNDS IN 2013

a) Including the Energy Efficiency Plan.

FINANCING ACTIVITIES

In 2013, Hydro-Québec's financing activities raised $2.2 billion on the Canadian market.

In July and October, the company floated two debenture issues with a nominal value of $500 million each, for a total amount of $1.2 billion. The debentures bear interest at 5.00% and mature in February 2050. These transactions were carried out with an average yield to maturity of 4.04%. In September, Hydro-Québec also issued variable-rate notes for a total amount of $1.0 billion, maturing in September 2018.

The proceeds were used to support part of the investment program and to refinance maturing debt.

SOURCES OF FINANCING

Type of financing	Amount authorized by the Board of Directors	Market	Outstanding as at December 31, 2013
Credit lines	C$750 million[a] or US$750 million[a]		C$118 million
Credit facility[b]	US$2,000 million		–
Commercial paper[b]	US$3,500 million or equivalent in C$	United States or Canada	C$23 million
Medium-term notes[b]	US$3,000 million or equivalent in other currencies	United States	US$340 million[c]
	C$20,000 million or equivalent in US$	Canada	C$14,793 million[c]

a) Of this amount, $552 million, in C$ or US$, is covered by operating credit line agreements with financial institutions.

b) Guaranteed by the Québec government.

c) Corresponds to net proceeds from the issue of medium-term notes.

CREDIT RATINGS

	2013			2012		
	Commercial paper	Long-term debt	Outlook/ Trend	Commercial paper	Long-term debt	Outlook/ Trend
U.S. agencies						
Moody's	**P-1**	**Aa2**	**Stable**	P-1	Aa2	Stable
Standard & Poor's	**A-1+**	**A+**	**N/A[a]**	A-1+	A+	N/A[a]
Fitch Ratings	**F1+**	**AA-**	**Negative**	F1+	AA-	Stable
Canadian agency						
DBRS	**R-1 (middle)**	**A (high)**	**Stable**	R-1 (middle)	A (high)	Stable

a) Standard & Poor's does not provide an outlook for Hydro-Québec's credit rating. However, it has given the Québec government, Hydro-Québec's shareholder and guarantor, a "stable" outlook.

DIVIDEND AND CAPITALIZATION RATE

The dividend for 2013 amounts to $2,207 million. Once this dividend is factored in, the capitalization rate was 30.5% as at December 31, 2013.

SEGMENTED INFORMATION

As in 2012, Hydro-Québec had four operating segments in 2013, namely Generation, Transmission, Distribution and Construction, as well as activities grouped under Corporate and Other Activities.

	2013					
Segmented financial information (SM)	Generation	Transmission	Distribution	Construction	Corporate and Other Activities	Hydro-Québec[a]
Revenue	6,598	3,050	11,247	2,574	1,502	12,881
Result from continuing operations	1,926	513	410	–	89	2,938
Result from discontinued operations[b]	4	–	–	–	–	4
Net result	1,930	513	410	–	89	2,942
Total assets	32,087	20,267	13,958	459	6,519	73,110

	2012					
Segmented financial information (SM)	Generation	Transmission	Distribution	Construction	Corporate and Other Activities	Hydro-Québec[a]
Revenue	6,041	3,105	10,739	2,295	1,460	12,136
Result from continuing operations	1,541	581	503	–	111	2,736
Result from discontinued operations[b]	(1,867)	(9)	–	–	–	(1,876)
Net result	(326)	572	503	–	111	860
Total assets	31,066	19,144	13,434	471	6,648	70,508

a) Includes the intersegment eliminations presented in Note 23 to the consolidated financial statements.

b) The discontinued operations are related to the 2012 decision to abandon the project to refurbish Gentilly-2 nuclear generating station and to terminate nuclear power operations.

Note: Certain comparative figures have been reclassified to conform to the presentation adopted in the current year.

SEGMENT HIGHLIGHTS

The **Generation** segment posted a result from continuing operations of $1,926 million in 2013, a $385-million increase over 2012. Net electricity exports totaled $1,353 million, or $254 million more than the $1,099 million recorded a year earlier. Electricity sales to Hydro-Québec Distribution increased by $135 million compared to the $4,755 million recorded in 2012, due, among other things, to the colder temperatures in 2013 than in 2012 and to higher demand in Québec. Electricity purchases from Rio Tinto Alcan decreased by $122 million. It should be remembered that Hydro-Québec Production had bought large quantities of electricity from that company in 2012. Depreciation and amortization expense increased by $34 million. In addition, the recognition in 2012 of $49 million payable to the Québec government under the *Act to establish the Northern Development Fund* resulted in a positive variance in 2013. Finally, water-power royalties increased by $53 million due to higher output and the indexing of the applicable rate.

The **Transmission** segment posted a result from continuing operations of $513 million in 2013, compared to $581 million in 2012. This $68-million decrease is due, among other things, to an adjustment related to the division's 2013 rate case, mainly because the cost of debt decreased from 7.03% in 2012 to 6.53% in 2013, benefiting customers, and to variances in revenue from point-to-point transmission services.

The **Distribution** segment posted a result from continuing operations of $410 million in 2013 compared to $503 million in 2012, a decrease of $93 million. Revenue from electricity sales increased by $569 million on account of three main factors: temperatures that were colder in 2013 than in 2012; higher demand; and the rate adjustments of April 1, 2012 and 2013. Other revenue decreased by $146 million, partly because of revenue variances related to climate conditions given the colder temperatures in 2013. Net electricity purchases rose by $453 million, mainly due to a $319-million increase in supplies purchased from third parties, primarily independent wind power and biomass energy producers, as well as in short-term purchases made on markets to meet occasional needs. Supplies from Hydro-Québec Production, for their part, increased by $135 million. In addition, depreciation and amortization expense increased by $40 million compared to 2012.

The **Construction** segment recorded a volume of activity of $2,574 million in 2013, compared to $2,295 million the previous year. As in 2012, this high volume stemmed from work on several major projects.

Hydro-Québec Production

HQ Energy Marketing Inc.	100%
H. Q. Energy Services (U.S.) Inc.	100%
Hydro Renewable Energy Inc.	100%
HQ Manicouagan Inc.	100%
Manicouagan Power Limited Partnership	60%
Gestion Production HQ Inc.	100%
Churchill Falls (Labrador) Corporation Limited	34.2%

Hydro-Québec division

Subsidiary, joint venture or interest held by Hydro-Québec and under the responsibility of Hydro-Québec Production

Under the *Act respecting the Régie de l'énergie*, Hydro-Québec Production is required to provide Hydro-Québec Distribution with a base volume of up to 165 TWh of heritage pool electricity annually. It may also compete for contracts under Hydro-Québec Distribution's open tendering process and sells electricity on wholesale markets as well.

The division operates 62 generating stations. Its capital projects serve a twofold objective: to ensure the long-term operability of existing facilities and to continue development of Québec's hydroelectric potential.

OPERATING RESULTS

Hydro-Québec Production posted a result from continuing operations of $1,926 million in 2013, a $385-million increase over 2012. Net electricity exports totaled $1,353 million, or $254 million more than the $1,099 million recorded a year earlier. Electricity sales to Hydro-Québec Distribution increased by $135 million compared to the $4,755 million recorded in 2012, due, among other things, to the colder temperatures in 2013 than in 2012 and to higher demand in Québec. Electricity purchases from Rio Tinto Alcan decreased by $122 million. It should be remembered that Hydro-Québec Production had bought large quantities of electricity from that company in 2012. Depreciation and amortization expense increased by $34 million. In addition, the recognition in 2012 of $49 million payable to the Québec government under the *Act to establish the Northern Development Fund* resulted in a positive variance in 2013. Finally, water-power royalties increased by $53 million due to higher output and the indexing of the applicable rate.

When the discontinued operations are factored in, the division's net result totaled $1,930 million in 2013, compared to a negative result of $326 million in 2012.

In 2012, following the September decision to abandon the project to refurbish Gentilly-2 nuclear generating station and terminate nuclear power operations, Hydro-Québec Production had posted a $1,867-million negative result from discontinued operations that was mainly due to the accounting treatment of the facility's shutdown at the end of the year.

ELECTRICITY SALES IN QUÉBEC

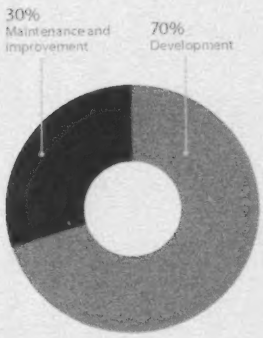
Sales to Hydro-Québec Distribution

The total volume of electricity sales to Hydro-Québec Distribution was 167.2 TWh in 2013, compared to 165.7 TWh in 2012, an increase of 1.5 TWh. Revenue generated by these sales increased by $135 million to $4,890 million, mainly because of growth in sales of electricity in excess of the heritage pool due, among other things, to the colder temperatures in 2013 than in 2012 and to higher demand in Québec.

Special contracts between Hydro-Québec Distribution and certain large industrial customers

The risks related to Hydro-Québec Distribution's special contracts with certain large industrial customers in Québec are absorbed by Hydro-Québec Production. In 2013, the special contracts reduced Hydro-Québec's net result by $240 million, compared to $238 million in 2012. On the other hand, the hedging operations carried out by the company to manage risks related to exchange rates and aluminum prices had a positive impact of $227 million in 2013, compared to $161 million in 2012.

BREAKDOWN OF 2013 INVESTMENTS BY HYDRO-QUÉBEC PRODUCTION



ELECTRICITY SALES OUTSIDE QUÉBEC

Electricity sales outside Québec amounted to $1,525 million, compared to $1,191 million in 2012. Short-term electricity sales generated $1,296 million, compared to $980 million the previous year.

Net electricity exports, which factor in short-term electricity purchases, generated $1,353 million, compared to $1,099 million in 2012. This increase was the result of the combined impact of market conditions, which were more favorable in 2013 than in 2012, and higher hydroelectric output. The unit contribution rose to 4.4¢/kWh in 2013 on account of higher prices on energy markets, especially at year end, due to the cold spell that gripped North America, and the depreciation of the Canadian dollar.

As at December 31, 2013, reservoir storage stood at 96.1 TWh, compared to 110.7 TWh a year earlier. This decrease is mainly because natural water inflows were higher than normal in 2012. The division's energy reserve continues to fully meet the criteria set for management of risks related to the security of the energy supply.

ELECTRICITY AND FUEL PURCHASES

Electricity and fuel purchases totaled $1,104 million in 2013, compared to $1,035 million in 2012. This $69-million variance is mainly owing to a $65-million increase in short-term electricity purchases made by the division as part of its business operations outside Québec. On the other hand, electricity purchases from Rio Tinto Alcan decreased by $122 million. It should be remembered that Hydro-Québec Production had bought large quantities of electricity from that company in 2012.

DEPRECIATION AND AMORTIZATION

Depreciation and amortization expense totaled $765 million, compared to $731 million in 2012, an increase that resulted, among other things, from the commissioning of capital assets, including the three generating units at Sarcelle powerhouse.

INVESTING ACTIVITIES

Investments in property, plant and equipment and intangible assets affecting cash totaled $1,381 million in 2013. Of this amount, $965 million went toward development activities, mainly the Romaine complex and Sarcelle powerhouse jobsites.

Hydro-Québec Production also invested $416 million in asset sustainment and optimization. For instance, refurbishment continued at Robert-Bourassa and Beauharnois generating stations and the Manicouagan complex.

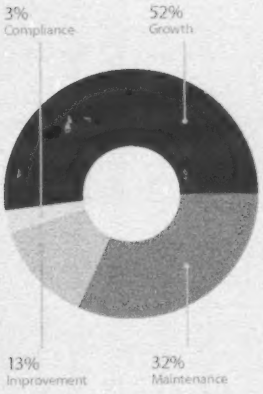
Hydro-Québec TransÉnergie

Cedars Rapids Transmission Company, Limited	100%

Hydro-Québec division

Subsidiary held by Hydro-Québec and under the responsibility of Hydro-Québec TransÉnergie

BREAKDOWN OF 2013 INVESTMENTS BY HYDRO-QUÉBEC TRANSÉNERGIE



Hydro-Québec TransÉnergie operates and develops Hydro-Québec's power transmission system. It markets system capacity and manages power flows throughout Québec.

The operations of Hydro-Québec TransÉnergie are regulated by the Régie de l'énergie.

RATE CASES

In April 2013, Hydro-Québec TransÉnergie and Hydro-Québec Distribution filed a joint application with the Régie de l'énergie for a review of their rate of return to bring it in line with that of similar companies in Québec and elsewhere in North America. The two divisions also proposed the implementation of a sharing mechanism that would allow customers to benefit from future cost reductions achieved by the company.

In August, Hydro-Québec TransÉnergie filed its 2013 and 2014 rate case application with the Régie de l'énergie. This application seeks the approval of the division's revenue requirements and changes to transmission service rates.

The Régie de l'énergie's rulings on these applications are expected in the first quarter of 2014. The Régie has indicated that in the meantime, the revenue requirements for 2013 would provisionally be maintained at the level approved for 2012, namely $2,992 million.

OPERATING RESULTS

Hydro-Québec TransÉnergie's result from continuing operations was $513 million in 2013, compared to $581 million in 2012. This $68-million decrease is due, among other things, to an adjustment related to the division's 2013 rate case, mainly because the cost of debt decreased from 7.03% in 2012 to 6.53% in 2013, benefitting customers, and to variances in revenue from point-to-point transmission services.

INVESTING ACTIVITIES

In 2013, Hydro-Québec TransÉnergie invested $1,915 million in property, plant and equipment and intangible assets affecting cash, namely $998 million for growth projects and $917 million for asset sustainment projects. The purpose of growth projects is to connect new hydroelectric facilities and wind farms to the grid and to increase transmission capacity in response to higher load demand or new customer requests. The asset sustainment projects involve keeping facilities in good operating condition, maintaining and improving service quality and complying with the legal and regulatory requirements for operating a power transmission system.

Growth projects under way in 2013 included continued work to connect Romaine-2 generating station (640 MW) as part of the expansion of the transmission system in Minganie, which accounted for $401 million, and to integrate the output from wind farms built in response to the call for tenders issued by Hydro-Québec Distribution in 2005 (2,000 MW), which accounted for $238 million.

In the asset sustainment category, Hydro-Québec TransÉnergie invested $672 million in equipment replacement and facility modernization. Among the projects under way are the rebuilding of Bélanger substation to raise the voltage to 315/120/25 kV, for an investment of $99 million that also includes a growth component. The division also invested $245 million in enhancing service quality, including $111 million for the addition of a 735/315-kV section at Bout-de-l'Île substation.

Hydro-Québec Distribution

Hydro-Québec division

Hydro-Québec Distribution provides electricity to the Québec market and delivers reliable power and quality services to its customers with a view to efficiency and sustainable development. In this context, it also promotes energy efficiency among its customers.

The division's activities are regulated by the Régie de l'énergie, which has exclusive jurisdiction to set electricity rates.

RATE CASES

In March 2013, the Régie de l'énergie approved an across-the-board electricity rate increase of 2.4%, effective April 1, 2013.

In August, Hydro-Québec Distribution filed an application with the Régie de l'énergie for a 3.4% adjustment in electricity rates, effective April 1, 2014. The main reasons for the adjustment are the costs related to wind power purchase contracts and indexing the price of the heritage pool. The costs related to higher demand in Québec are offset by efficiency gains of $160 million remitted to customers.

In September, at the request of the Régie de l'énergie, Hydro-Québec Distribution incorporated into its rate case an application to review its rate of return that it had submitted as a separate case in April 2013, jointly with Hydro-Québec TransÉnergie. The purpose of the review is to bring the two divisions' rate of return in line with that of similar companies in Québec and elsewhere in North America. The review would have a 2.4% impact on electricity rates, bringing the overall adjustment requested to 5.8%. The two divisions also proposed the implementation of a sharing mechanism that would allow customers to benefit from future cost reductions achieved by the company.

The Régie de l'énergie's rulings on these applications are expected in the first quarter of 2014.

SUPPLYING THE QUÉBEC MARKET

Hydro-Québec Distribution relies on various sources to supply the Québec market. It relies primarily on the heritage pool of 165 TWh, which it purchases from Hydro-Québec Production, and also issues short- and long-term calls for tenders. For requirements of less than three months, it may also buy electricity directly on the market, without tendering, under an authorization granted by the Régie de l'énergie. For unforeseen needs that cannot be met otherwise, the division relies on a framework agreement with Hydro-Québec Production. As the current agreement expired on December 31, 2013, the two divisions signed a new three-year agreement that was approved by the Régie de l'énergie in December 2013.

In November 2013, Hydro-Québec Distribution filed its Electricity Supply Plan 2014–2023 with the Régie de l'énergie. This plan features a larger supply portfolio than the previous one, given the additional energy blocks called for in orders-in-council issued by the Québec government.

Finally, Hydro-Québec Distribution is continuing its efforts to promote energy efficiency. In 2013, its customers' participation in the Energy Efficiency Plan generated new savings of 619 GWh. Factoring in the CATVAR project (voltage regulation and reactive power control) and the programs sponsored by the Bureau de l'efficacité et de l'innovation énergétiques to which the division contributes, cumulative energy savings of 8.5 TWh have been achieved since 2003.

OPERATING RESULTS

Hydro-Québec Distribution posted a result from continuing operations of $410 million in 2013 compared to $503 million in 2012, a decrease of $93 million. Revenue from electricity sales increased by $569 million on account of three main factors: temperatures that were colder in 2013 than in 2012; higher demand; and the rate adjustments of April 1, 2012 and 2013. Other revenue decreased by $146 million, partly because of revenue variances related to climate conditions given the colder temperatures in 2013. Net electricity purchases rose by $453 million, mainly due to a $319-million increase in supplies purchased from third parties, primarily independent wind power and biomass energy producers, as well as in short-term purchases made on markets to meet occasional needs. Supplies from Hydro-Québec Production, for their part, increased by $135 million. In addition, depreciation and amortization expense increased by $40 million compared to 2012.

ELECTRICITY SALES IN QUÉBEC BY SEGMENT

	Sales volume			Sales revenue		
	2013	2013–2012 change		**2013**	2013–2012 change	
Market segment	TWh	TWh	%	$M	$M	%
Residential	**66.0**	4.0	6.5	**4,825**	373	8.4
Commercial, institutional and small industrial	**44.6**	0.8	1.9	**3,504**	134	4.0
Large industrial	**56.9**	–	–	**2,439**	122	5.3
Other	**5.0**	0.2	3.4	**286**	18	6.7
Total	**172.5**	5.0	3.0	**11,054**	647	6.2

FACTORS IN THE 2013–2012 CHANGE IN SALES BY SEGMENT

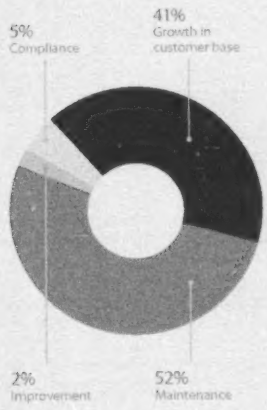
	Volume effects							Price effects			**Total**
	Baseload demand		Temperatures		February 29		**Total**	Rate adjustments	Other	**Total**	
Market segment	TWh	$M	TWh	$M	TWh	$M	$M	$M	$M	$M	$M
Residential	0.6	46	3.7	270	(0.3)	(19)	**297**	65	11	**76**	**373**
Commercial, institutional and small industrial	0.4	25	0.5	37	(0.1)	(10)	**52**	55	27	**82**	**134**
Large industrial	0.2	22	–	–	(0.2)	(6)	**16**	26	80	**106**	**122**
Other	–	2	0.2	5	–	(1)	**6**	4	8	**12**	**18**
Total	1.2	95	4.4	312	(0.6)	(36)	**371**	150	126	**276**	**647**

ELECTRICITY SALES IN QUÉBEC

Revenue from electricity sales amounted to $11,054 million, a $647-million increase compared to 2012 that is due to colder temperatures in 2013 than in 2012, higher demand and the rate adjustments of April 1, 2012 and 2013. Revenue from special contracts with certain large industrial customers increased because of the positive impact of hedging operations related to exchange rates and aluminum prices. The risks related to special contracts are absorbed by Hydro-Québec Production.

Sales volume totaled 172.5 TWh compared to 167.5 TWh in 2012, a 5.0-TWh increase. On one hand, temperatures were colder in 2013 than in 2012, resulting in a 4.4-TWh or $312-million increase. Temperatures therefore had a positive impact of $80 million in 2013, compared to a negative impact of $232 million in 2012. On the other hand, demand grew by 1.2 TWh, especially in the residential segment, where it increased by 0.6 TWh or $46 million.

BREAKDOWN OF 2013 INVESTMENTS BY HYDRO-QUÉBEC DISTRIBUTION (EXCLUDING THE EEP[a])



a) EEP: Energy Efficiency Plan

OTHER REVENUE

Other revenue decreased by $146 million compared to 2012, due mainly to the change in the amounts that Hydro-Québec is entitled to receive from customers or is required to pay to them in connection with such things as revenue variances related to climate conditions and variances in supply costs for electricity in excess of the heritage pool.

Revenue variances related to climate conditions correspond to differences between Hydro-Québec Distribution's actual transmission and distribution revenue and the revenue forecasts established on the basis of the climate normal for rate case purposes. These variances led to the recognition of an amount of $42 million payable to customers in 2013, compared to an amount receivable of $122 million in 2012, for a negative change of $164 million stemming from the fact that temperatures were colder in 2013 than in 2012.

Variances in supply costs for electricity in excess of the heritage pool led to the recognition of an amount of $48 million receivable from customers in 2013, given the fact that the actual supply costs were higher than the costs forecasted for rate-setting purposes. An amount of $4 million was recognized in this regard as receivable from customers in 2012, for a positive change of $44 million.

ELECTRICITY PURCHASES AND TRANSMISSION COSTS

Net electricity purchases were $453 million higher than in 2012, partly because of a $319-million increase in supplies from independent wind power producers, for $196 million, and biomass energy producers, for $57 million, as well as short-term purchases made on markets to meet occasional needs, for $71 million. In addition, supplies from Hydro-Québec Production increased by $135 million, due, among other things, to the colder temperatures in 2013 than in 2012 and to higher demand in Québec.

The cost of native-load transmission service totaled $2,624 million, the same amount as in 2012, because the Régie de l'énergie has ruled that Hydro-Québec TransÉnergie's electricity transmission rates approved for 2012 would provisionally be maintained for 2013, until the decision on the Transmission Provider's 2013 rate case is made in the first quarter of 2014.

DEPRECIATION AND AMORTIZATION

Depreciation and amortization expense totaled $719 million, compared to $679 million in 2012, an increase of $40 million due partly to the commissioning of property, plant and equipment, including the advanced metering infrastructure.

INVESTING ACTIVITIES

In 2013, Hydro-Québec Distribution's investments in property, plant and equipment and intangible assets affecting cash totaled $882 million.

Of this amount, $313 million went toward handling the growth of the Québec customer base, including $175 million for new customer connections. The division also invested $397 million in asset sustainment, which includes $174 million for the rollout of the advanced metering infrastructure. In addition, it allocated $19 million to enhancing service quality, including $8 million for the SOGEM line crew scheduling and management project, which will enable the division to optimize and standardize its fieldwork management processes.

Hydro-Québec Distribution also invested $113 million in the Energy Efficiency Plan.

CONSTRUCTION

Hydro-Québec Équipement et services partagés

Société d'énergie de la Baie James — 100%

- Hydro-Québec division
- Subsidiary held by Hydro-Québec and under the responsibility of Hydro-Québec Équipement et services partagés

The Construction segment includes activities related to the projects carried out by Hydro-Québec Équipement et services partagés[1] and by Société d'énergie de la Baie James (SEBJ).

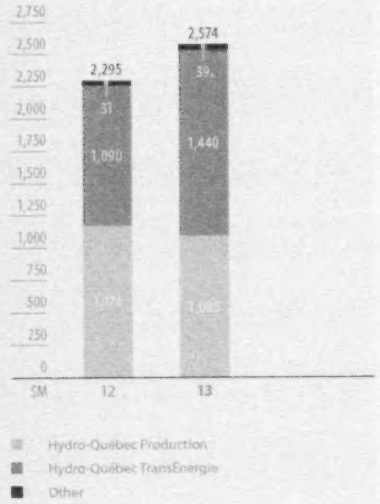
Hydro-Québec Équipement et services partagés is responsible for construction and refurbishment projects throughout Québec, except in the territory governed by the *James Bay and Northern Québec Agreement* (JBNQA). SEBJ builds generating facilities in the territory governed by the JBNQA (north of the 49th parallel) and may also carry out certain projects elsewhere in Québec and outside the province.

As engineering, construction and environmental specialists, Hydro-Québec Équipement et services partagés and SEBJ offer Hydro-Québec Production and Hydro-Québec TransÉnergie a variety of services needed for draft-design studies, impact assessments and other undertakings in the context of energy-related projects. These services include technical and scientific surveys, planning, cost estimates, design, architecture, geomatics and quality control.

VOLUME OF ACTIVITY

Hydro-Québec Équipement et services partagés and SEBJ carried out activities amounting to $2,574 million in 2013, compared to $2,295 million the previous year. As in 2012, the high volume can be attributed to several large-scale projects. Work done for Hydro-Québec Production totaled $1,095 million, compared to $1,174 million in 2012, while work done for Hydro-Québec TransÉnergie totaled $1,440 million, compared to $1,090 million.

BREAKDOWN OF CONSTRUCTION SEGMENT ACTIVITIES



MAIN ACHIEVEMENTS

In 2013, Hydro-Québec Équipement et services partagés and SEBJ carried out power generation and transmission projects amounting to a total of $2,535 million, compared to $2,264 million in 2012. The main projects under way for Hydro-Québec Production include construction of the Romaine complex as well as the refurbishment of Beauharnois generating station and various facilities in the Manicouagan complex. In addition, Sarcelle powerhouse was commissioned in 2013. For Hydro-Québec TransÉnergie, the division continued work related to connecting the Romaine complex, integrating the output from wind farms, rebuilding Bélanger substation and adding a 735/315-kV section at Bout-de-l'Île substation. In addition, it worked on upgrading various facilities in the main transmission system while pursuing other projects to increase transmission system capacity.

1. The operations of the Direction principale – Centre de services partagés are included under Corporate and Other Activities.

CORPORATE AND OTHER ACTIVITIES

BREAKDOWN OF 2013 REVENUE: DIRECTION PRINCIPALE – CENTRE DE SERVICES PARTAGÉS

This heading includes corporate activities, the Direction principale – Centre de services partagés and the Groupe – Technologie.

RESULTS

Corporate and Other Activities recorded a net result of $89 million in 2013, comparable to the 2012 figure.

CORPORATE ACTIVITIES

Corporate activities consist of the Vice-présidence – Ressources humaines; financial services, which are provided by two departments; and the Groupe – Affaires corporatives et secrétariat général.

The Vice-présidence – Ressources humaines develops strategies, guidelines, frameworks, corporate programs and objectives in matters pertaining to human resources management, labor relations, compensation and employee benefits, organizational performance, health and safety, as well as training and skills development. Its mission includes providing certain products and services in these areas to the entire company, as well as making sure that Management can count on optimum human resources conditions.

The Vice-présidence – Comptabilité et contrôle is responsible for overseeing financial, regulatory and management accounting frameworks as well as integrated business risk management. It also has the task of producing and analyzing the company's consolidated financial statements. Its other duties include financial planning, taxation, control, accounting for revenue other than from electricity sales, human resources–related financial transactions and disbursements related to employees, retirees and suppliers.

The Vice-présidence – Financement, trésorerie et caisse de retraite is in charge of meeting the company's financing requirements, managing its treasury and maintaining relations with Hydro-Québec bondholders and rating agencies. It also acts as trustee of Hydro-Québec's pension fund. As at December 31, 2012, the date of the most recent actuarial valuation, the pension plan showed a funding surplus of $716 million, which means that the assets held were sufficient to cover future pension costs. On that date, the pension plan's funding ratio was 104.6%. In 2013, the pension fund had a 13.8% rate of return, compared to 10.3% in 2012. As a result of this excellent performance and the gradual normalization of interest rates, Hydro-Québec anticipates an increase in the funding ratio and surplus as well as a major reduction in the solvency deficit, which amounted to $4.6 billion at the end of 2012.

The Groupe – Affaires corporatives et secrétariat général provides support services and strategic consulting in the areas of communications, public affairs, environment and ethics, as well as government and institutional relations. It is also responsible for services and expertise related to legal affairs as well as safety and security of persons and property. In addition, it coordinates strategic planning and the company's contribution to the electrification of ground transportation. The Secretary General assists the President and Chief Executive Officer in carrying out the company's mandate and acts as Secretary to the Board of Directors and the Board committees at Hydro-Québec and its subsidiaries.

DIRECTION PRINCIPALE – CENTRE DE SERVICES PARTAGÉS

The Direction principale – Centre de services partagés, which is part of Hydro-Québec Équipement et services partagés, develops strategies, guidelines and frameworks pertaining to procurement and services common to the entire company. It provides divisions and corporate units with support services adapted to their needs, so that they can focus on their core activities. These services include procurement of goods and services, real estate management, document management and materials management, as well as management of food, accommodation and air and ground transportation services.

Its revenue totaled $490 million in 2013, compared to $465 million in 2012.

Groupe – Technologie

Hydro-Québec IndusTech inc.	100%
Hydro-Québec CapiTech inc.	100%

Corporate unit

■ Subsidiary held by Hydro-Québec and under the responsibility of Groupe – Technologie

BREAKDOWN OF 2013 REVENUE RELATED TO INFORMATION AND COMMUNICATION TECHNOLOGY ACTIVITIES

GROUPE – TECHNOLOGIE

The Groupe – Technologie is composed primarily of the Direction principale – Télécommunications, the Direction principale – Technologie de l'information, Hydro-Québec's research institute and the subsidiaries Hydro-Québec IndusTech and Hydro-Québec CapiTech. The group's mandate is to ensure the integrated management of technological innovation and the optimal management of telecommunications and information system infrastructure. With this in mind, it has continued to implement an overall vision for systems governance, architecture and security in order to capitalize on the convergence of technologies and thereby contribute to improving the company's overall performance.

Direction principale – Télécommunications and Direction principale – Technologie de l'information

The Direction principale – Télécommunications and the Direction principale – Technologie de l'information enhance the efficiency of all divisions and corporate units by offering technology solutions in line with Hydro-Québec's business priorities.

In 2013, these two units posted revenue of $596 million, compared to $576 million in 2012.

Research institute

Hydro-Québec's research institute, IREQ, provides technical assistance to the divisions and carries out technological innovation projects to support their operations and ensure the long-term development of Hydro-Québec. The company allocates approximately $100 million annually to IREQ's activities.

Hydro-Québec IndusTech

The mission of Hydro-Québec IndusTech is to partner with the private sector in industrializing and marketing technologies resulting from Hydro-Québec's research activities. Among other things, it is responsible for TM4, a company active in the field of electric powertrain systems. In 2013, TM4 was involved in starting up various projects that tie into the Québec government's *Transportation Electrification Strategy 2013–2017*. In addition, Prestolite E-Propulsion Systems (PEPS), a joint venture it holds in equal shares with Prestolite Electric Beijing, opened a plant in China to manufacture TM4-designed SUMO electric motors for heavy vehicles and market them in Asia.

Investing activities

In 2013, the Groupe – Technologie's investments totaled $127 million, of which $112 million was allocated to maintaining asset quality and $15 million to development activities.

OUTLOOK

Hydro-Québec is targeting a net result of $2.9 billion for the 2014 financial year. This outlook takes into account the joint application filed by the Transmission Provider and the Distributor with the Régie de l'énergie to obtain approval of a 9.2% rate of return on equity. It is also premised on favorable conditions on export markets.

The company plans to invest approximately $4.0 billion in 2014, most of which will be allocated to the operations of Hydro-Québec TransÉnergie ($1.5 billion) and Hydro-Québec Production ($1.4 billion). More than half of Hydro-Québec's investments will be earmarked for development and growth activities. The remainder will go toward facility maintenance and improvements.

Hydro-Québec Production will continue its work on the Romaine complex jobsites in the course of developing Québec's hydroelectric potential. Romaine-2, the first of the four generating stations in this major project, is slated for commissioning in 2014, while the others will follow at intervals until 2020. In addition, the division will continue investing to ensure the long-term operability of its facilities and optimize their efficiency. One such project involves the refurbishment of the generating units at Robert-Bourassa generating station, which will go on for several years.

Hydro-Québec TransÉnergie will devote a large part of its investments to development in order to integrate new hydroelectric and wind capacity into its grid. Specifically, it will continue connecting various wind farms built in response to Hydro-Québec Distribution's calls for tenders and working on the project to expand the transmission system in Minganie in order to connect the Romaine complex. The division will also continue to invest in maintenance and improvement activities to ensure the reliability and long-term operability of its transmission assets and enhance service quality. An example of this is the addition and modification of equipment on the 315-kV grid, which, among other things, involves building a 735/315-kV section at Bout-de-l'Île substation.

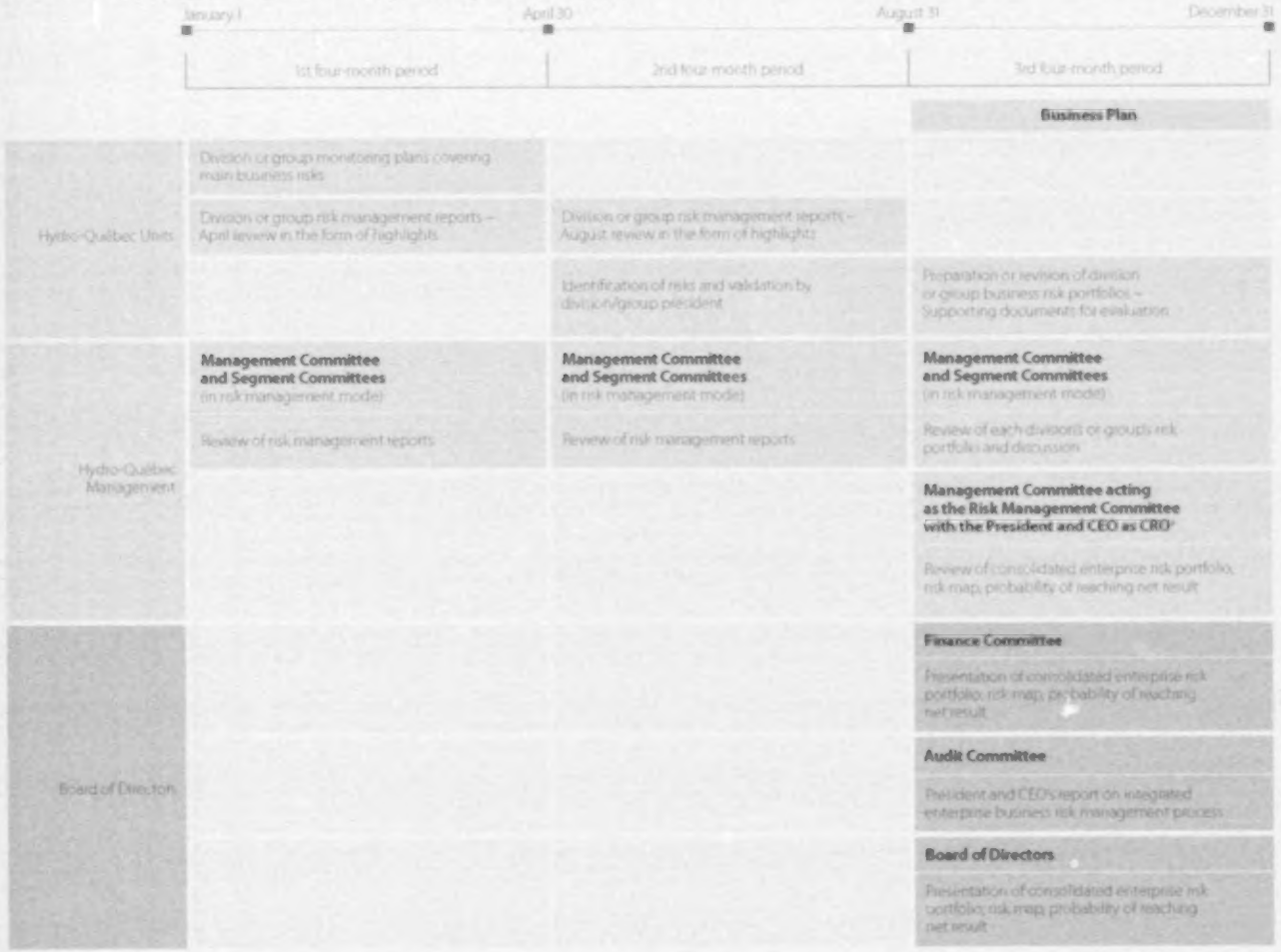
Hydro-Québec Distribution will continue to deliver reliable power and high-quality services to Québec customers. It will make further investments to handle the growth of the Québec customer base and to maintain and improve the quality of its facilities. It will also continue to implement the Energy Efficiency Plan, which includes measures for low-income households. In addition, it will continue to install next-generation meters as part of the rollout of an advanced metering infrastructure. Upon completion of this project, in 2018, the division will have replaced its entire meter fleet, some 3.75 million units in total.

INTEGRATED BUSINESS RISK MANAGEMENT

Hydro-Québec applies an integrated business risk management process as part of its ongoing activities. This process is supported by various control, communication and assessment mechanisms that enable it to monitor risk developments on a dynamic basis.

Hydro-Québec's divisions and corporate units are central to the process. As part of their ongoing activities, they manage the risks to which they are exposed and reassess them on a regular basis, daily in some cases. In concrete terms, each division or corporate unit must determine and assess its main risks and then develop and apply mitigation measures to ensure that residual business risks are at a level acceptable to Hydro-Québec. This exercise leads to the creation of a consolidated portfolio of residual business risks during the annual planning process. This consolidated portfolio is presented to the Board of Directors with the Business Plan, which includes an analysis of the sensitivity of the net result to the principal risks. The divisions and corporate units report on their risk management activities and follow-up to the Management Committee, which acts as a risk management committee to provide overall monitoring of business risks.

ANNUAL INTEGRATED BUSINESS RISK MANAGEMENT PROCESS


January 1
April 30
August 31
December 31
1st four-month period
2nd four-month period
3rd four-month period
Business Plan
Hydro-Québec Units
Division or group monitoring plans covering main business risks
Division or group risk management reports – April review in the form of highlights
Division or group risk management reports – August review in the form of highlights
Identification of risks and validation by division/group president
Preparation or revision of division or group business risk portfolios – Supporting documents for evaluation
Hydro-Québec Management
Management Committee and Segment Committees (in risk management mode)
Review of risk management reports
Management Committee and Segment Committees (in risk management mode)
Review of risk management reports
Management Committee and Segment Committees (in risk management mode)
Review of each division's or group's risk portfolio and discussion
Management Committee acting as the Risk Management Committee with the President and CEO as CRO[a]
Review of consolidated enterprise risk portfolio, risk map, probability of reaching net result
Board of Directors
Finance Committee
Presentation of consolidated enterprise risk portfolio, risk map, probability of reaching net result
Audit Committee
President and CEO's report on integrated enterprise business risk management process
Board of Directors
Presentation of consolidated enterprise risk portfolio, risk map, probability of reaching net result

a) Chief Risk Officer

FINANCIAL RISKS

In the course of its operations, Hydro-Québec carries out transactions that expose it to certain financial risks, such as market, credit and liquidity risk. Systematic follow-up and the adoption of strategies that include the use of derivative instruments considerably reduce exposure to such risks and their impact on results.

MARKET RISK

Hydro-Québec's results are subject to different types of market risk associated mainly with fluctuations in the Canadian dollar's exchange rate compared to the U.S. dollar as well as fluctuations in interest rates and aluminum prices. Exchange rate fluctuations affect revenue from sales denominated in U.S. dollars as well as the cost of U.S. dollar–denominated debt and swaps. Interest rate fluctuations affect financial expenses, pension costs and the authorized return on equity of regulated divisions. Aluminum price fluctuations have an impact on revenue from special contracts with certain large industrial customers in Québec.

The three types of market risk are subject to active integrated management, in particular through derivative financial products. The purpose of such management is to limit the impact of market risk on Hydro-Québec's short-term results, according to strategies and criteria established based on the company's risk tolerance. Furthermore, Hydro-Québec can count on certain offsetting factors that mitigate its market risk over the medium and long term. For example, it holds debt and swaps denominated in U.S. dollars as a hedge against sales in that currency. The effect of exchange rate fluctuations on sales is thus offset by exchange gains or losses on debt in U.S. dollars. There is also an offsetting effect between the impact of a general increase or decrease in interest rates on financial expenses, on the one hand, and the impact of such an increase or decrease on pension costs and the authorized return on equity of regulated divisions, on the other.

CREDIT RISK

Credit risk is the risk that a counterparty may not meet its contractual obligations. Hydro-Québec is exposed to credit risk related to receivables through ongoing electricity sales in Québec. These sales are billed at rates that provide for cost recovery according to conditions approved by the Régie de l'énergie. The company is also exposed to credit risk related to the cash equivalents, short-term investments and derivative instruments traded with financial institutions and other issuers and, to a lesser extent, with North American energy companies under Hydro-Québec Distribution supply contracts and Hydro-Québec Production energy transactions on markets outside Québec.

Exposure to credit risk is mitigated by the implementation of limits and frameworks for risk concentration and level of exposure by counterparty. To ensure compliance with such limits and frameworks, Hydro-Québec takes a proactive approach based on various controls and monitoring reports. These enable it to react quickly to any event that could have an impact on the financial condition of its counterparties. In addition, the company generally does business with counterparties that have a high credit rating. It also enters into agreements to limit the market value of the main portfolios of derivative instruments.

LIQUIDITY RISK

Liquidity risk is the risk that a company may have difficulty meeting commitments related to its financial liabilities. This type of risk may translate into difficulties accessing sources of financing for its investment program.

Hydro-Québec's liquidity risk is mitigated by several factors, including substantial cash flows from operating activities, access to a preauthorized standby credit facility and a diversified portfolio of highly liquid financial instruments. Given the mitigation measures in place, the company considers its level of exposure to liquidity risk to be low.

OPERATIONAL RISKS

GENERATION

One of the principal uncertainties that Hydro-Québec faces relates to natural water inflows. Hydro-Québec Production must ensure that it is able to meet its commitments to supply the annual heritage pool of 165 TWh to Hydro-Québec Distribution and fulfill its contractual obligations. In concrete terms, this means being able to cover a natural inflow deficit of 64 TWh over two consecutive years, and 98 TWh over four consecutive years. To meet this requirement, the division applies a variety of mitigation measures and closely monitors them. It therefore manages its reservoir storage on a multiyear basis and maintains an adequate margin between its generating capacity and its commitments. This allows the division to compensate for variations in runoff, replenish its reserves or take advantage of business opportunities. Hydro-Québec regularly reports to the Régie de l'énergie on the generating capacity and energy reserve of Hydro-Québec Production.

In addition to runoff uncertainties, Hydro-Québec Production's export activities on wholesale markets are subject to market risk and the risk of unavailability of generating and transmission equipment. Market risk results from fluctuations in electricity and fuel prices, and is mitigated by ongoing monitoring of trends in wholesale markets and the use of hedging derivative instruments. The risk of unavailability of generating and transmission equipment is maintained at a level deemed acceptable through maintenance and upgrade programs.

The risks related to Hydro-Québec Production's export activities are quantified in an integrated fashion by a team of specialists that is independent of the group carrying out the transactions. This team sees to the application of controls, presents daily reports to Senior Management and ensures compliance with the limits approved by Management and the Board of Directors.

TRANSMISSION

Several factors, such as extreme weather and equipment failure, may cause service interruptions or result in the unavailability of part of the transmission system. The multifaceted strategy adopted by Hydro-Québec TransÉnergie to prevent these problems includes implementing the standards of the North American Electric Reliability Corporation and the Northeast Power Coordinating Council, as well as measures to maintain and improve transmission facilities and optimize their useful life. In 2007, the Régie de l'énergie confirmed the reliability expertise of Hydro-Québec TransÉnergie by designating its Direction – Contrôle des mouvements d'énergie, the unit responsible for system control, as Reliability Coordinator for Québec.

Hydro-Québec TransÉnergie must ensure adequate transmission capacity to supply Hydro-Québec Distribution and other customers, as well as transmission system security and reliability. To do so, the division relies, among other things, on a strategy of ensuring long-term operability of transmission assets and on a process for optimal management of annual peak load.

DISTRIBUTION

Hydro-Québec Distribution's activities are subject to uncertainty related to fluctuations in demand (under normal climate conditions) due to the economic and energy situation, which have an impact on results. When demand is lower than the forecasts made in the rate case, the division cannot recover from customers all the costs related to power distribution and power transmission through the Hydro-Québec TransÉnergie system. To counter the impact of this risk, the division constantly fine-tunes its method of forecasting demand for electricity.

Hydro-Québec Distribution applies a series of measures to ensure long-term operability of the distribution system, and hence service quality. These measures include compliance with applicable standards for overhead and underground systems, the implementation of an asset maintenance program and a strategy for asset renewal, as well as vegetation control.

CONSTRUCTION

One of the principal risks that Hydro-Québec Équipement et services partagés must deal with is pressure on project costs, due to such factors as the rising cost of labor in the construction industry, higher prices for certain materials or products (such as petroleum products) and events that affect project schedules. There is also a risk related to the quality and delivery time for components, especially when they are manufactured outside Canada.

Regarding construction time, the division makes respecting schedules a top priority despite the constraints inherent in large-scale capital projects. This is particularly important in the current context of the construction industry in Québec, in which new legislative and regulatory measures may have an impact on workflows and on Hydro-Québec's ability to deal with certain suppliers. An active monitoring process and contingency measures have been put in place to mitigate the most probable impacts of this situation.

To meet its commitments and continue to apply high quality and safety standards, Hydro-Québec Équipement et services partagés has implemented a number of measures that reduce its risk exposure. Specifically, the division closely monitors project schedules, costs and the main deliverables, an approach that enables it to ensure that projects are progressing as planned or to take any necessary corrective action. In addition, it maintains ongoing relations with the relevant organizations and government departments to stay abreast of future amendments to laws and regulations that could affect construction costs and deadlines, among other things. It also monitors key indicators for trends in prices and the rate of activity in the construction industry. Finally, it develops procurement strategies that promote competition, sustainable supplies and maintaining expertise in its markets, and it adjusts its project completion strategies according to economic conditions, in consultation with its customers.

CORPORATE AND OTHER ACTIVITIES

Environmental protection and conservation are among Hydro-Québec's central concerns. The majority of activities that have a significant impact on the environment are governed by an ISO 14001–certified environmental management system. In addition, every year, the company reviews its management of environmental issues and provides an overview of the situation in this regard in its Sustainability Report.

Hydro-Québec is also concerned with information security and the risks associated with data confidentiality and with the loss of availability or integrity of systems and data as a result of a malicious act, error or natural disaster. It regularly assesses how well its information systems are protected against threats and implements the necessary security measures. These measures include an information and communication technology security program, an antivirus expertise centre, a process for anticipating security threats, Internet filtering mechanisms, a security monitoring centre, management of identities and access, and management of incidents and vulnerabilities.

Finally, Hydro-Québec has a corporate emergency response plan to ensure the continuity of its operations and its mission in case of an exceptional event. The corporate plan integrates the emergency response plans and activities of the business units, thereby strengthening and improving coordination of the efforts of all internal and external responders, including public authorities.

MANAGEMENT REPORT

Hydro-Québec's consolidated financial statements and all additional financial information contained in this Annual Report are the responsibility of Management and are approved by the Board of Directors. The consolidated financial statements have been prepared by Management in accordance with Canadian generally accepted accounting principles and take into account the decisions handed down by the Régie de l'énergie with respect to the transmission and distribution of electricity. They include amounts determined based on Management's best estimates and judgment. Financial information presented elsewhere in the Annual Report is consistent with the information provided in the consolidated financial statements.

Management maintains an internal control system which includes communicating Hydro-Québec's rules of ethics and Code of Conduct to employees, primarily to ensure the proper management of resources and the orderly conduct of business. The objective of this system is to provide reasonable assurance that the financial information is pertinent and reliable and that the assets of Hydro-Québec are adequately recorded and safeguarded. An internal auditing process allows evaluation of the sufficiency and effectiveness of control, as well as of Hydro-Québec's policies and procedures. Recommendations ensuing from this process are submitted to Management and the Audit Committee.

The Board of Directors is responsible for corporate governance. It assumes its responsibility for the consolidated financial statements principally through its Audit Committee, composed solely of independent directors, who do not hold full-time positions within Hydro-Québec or in one of its subsidiaries. The Audit Committee is responsible for ensuring that the consolidated financial statements present fairly Hydro-Québec's financial position, results of operations and cash flows, and for recommending the consolidated financial statements to the Board of Directors for approval. The Audit Committee meets with Management, the Internal Auditor and the independent auditors to discuss the results of their audits and the resulting findings with respect to the integrity and the quality of Hydro-Québec's financial reporting as well as the operation of its internal control system. The Internal Auditor and the independent auditors have full and unrestricted access to the Audit Committee, with or without Management present.

The 2013 and 2012 consolidated financial statements have been audited jointly by the Auditor General of Québec, KPMG LLP and Ernst & Young LLP.

/s/ Pierre Karl Péladeau
Chairman of the Board

/s/ Thierry Vandal
President and Chief Executive Officer

/s/ Lise Croteau
Vice President – Accounting and Control

Montréal, Québec
February 21, 2014

INDEPENDENT AUDITORS' REPORT

To the Minister of Finance of Québec:

REPORT ON CONSOLIDATED FINANCIAL STATEMENTS

We have audited the accompanying consolidated financial statements of Hydro-Québec, which comprise the consolidated balance sheets as at December 31, 2013 and 2012, and the consolidated statements of operations, retained earnings, cash flows and comprehensive income for the years then ended, and the notes, comprising a summary of significant accounting policies and other explanatory information.

MANAGEMENT'S RESPONSIBILITY FOR THE CONSOLIDATED FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Canadian generally accepted accounting principles, and for such internal control as Management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

AUDITORS' RESPONSIBILITY

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by Management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

OPINION

In our opinion, these consolidated financial statements present fairly, in all material respects, the consolidated financial position of Hydro-Québec as at December 31, 2013 and 2012, and its consolidated results of operations and its consolidated cash flows for the years then ended in accordance with Canadian generally accepted accounting principles.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

As required by the *Auditor General Act* (CQLR, c. V-5.01), we report that, in our opinion, for the year ended December 31, 2013, these principles have been applied on a basis consistent with that of the preceding year.

/s/ KPMG LLP[1]

/s/ Ernst & Young LLP[2]

/s/ Michel Samson, CPA auditor, CA
Acting Auditor General of Québec

Montréal, Québec
February 21, 2014

1. CPA auditor, CA, public accountancy permit No. A120220
2. CPA auditor, CA, public accountancy permit No. A109499

CONSOLIDATED STATEMENTS OF OPERATIONS

Years ended December 31
In millions of Canadian dollars

	Notes	2013	2012
Revenue	3	**12,881**	12,136
Expenditure			
Operations		**2,450**	2,364
Electricity and fuel purchases		**1,568**	1,183
Depreciation and amortization	4	**2,492**	2,415
Taxes	5	**1,000**	997
		7,510	6,959
Operating result		**5,371**	5,177
Financial expenses	6	**2,433**	2,441
Result from continuing operations		**2,938**	2,736
Result from discontinued operations	7	**4**	(1,876)
Net result		**2,942**	860

CONSOLIDATED STATEMENTS OF RETAINED EARNINGS

Years ended December 31
In millions of Canadian dollars

	Note	2013	2012
Balance, beginning of year		**14,833**	14,618
Net result		**2,942**	860
		17,775	15,478
Dividend	18	**2,207**	645
Balance, end of year		**15,568**	14,833

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED BALANCE SHEETS

As at December 31
In millions of Canadian dollars

	Notes	2013	2012
ASSETS			
Current assets			
Cash and cash equivalents	16	**1,695**	2,183
Short-term investments		**1,689**	609
Accounts receivable and other receivables	16	**2,177**	1,911
Derivative instruments	16	**883**	1,052
Regulatory assets	2	**1**	16
Materials, fuel and supplies		**194**	178
		6,639	5,949
Property, plant and equipment	8	**59,077**	57,174
Intangible assets	9	**2,323**	2,241
Investments	10	**146**	134
Derivative instruments	16	**659**	1,269
Regulatory assets	2	**8**	10
Other assets	11	**4,258**	3,731
		73,110	70,508
LIABILITIES			
Current liabilities			
Borrowings		**23**	19
Accounts payable and accrued liabilities		**2,229**	2,069
Dividend payable	18	**2,207**	645
Accrued interest		**890**	835
Asset retirement obligations	12	**118**	178
Derivative instruments	16	**576**	663
Current portion of long-term debt	13	**1,157**	694
		7,200	5,103
Long-term debt	13	**43,067**	42,555
Asset retirement obligations	12	**834**	774
Derivative instruments	16	**1,295**	1,816
Other liabilities	14	**1,067**	1,003
Perpetual debt	15	**253**	275
		53,716	51,526
EQUITY	18		
Share capital		**4,374**	4,374
Retained earnings		**15,568**	14,833
Accumulated other comprehensive income		**(548)**	(225)
		15,020	14,608
		19,394	18,982
		73,110	70,508
Commitments and contingencies	22		

The accompanying notes are an integral part of the consolidated financial statements.

On behalf of the Board of Directors,

/s/ Jacques Leblanc
Chair of the Audit Committee

/s/ Pierre Karl Péladeau
Chairman of the Board

CONSOLIDATED STATEMENTS OF CASH FLOWS

Years ended December 31 In millions of Canadian dollars	Notes	2013	2012
Operating activities			
Net result		**2,942**	860
Adjustments to determine net cash flows from operating activities			
Depreciation and amortization	4	**2,492**	2,429
Amortization of premiums, discounts and issue expenses related to debt securities		**148**	286
Write-off of property, plant and equipment under construction	7	**–**	990
Impairment of nuclear generating station assets	7	**–**	827
Other		**10**	11
Change in non-cash working capital items	20	**(131)**	(200)
Net change in accrued benefit assets and liabilities	21	**(444)**	(435)
		5,017	4,768
Investing activities			
Additions to property, plant and equipment		**(4,055)**	(3,673)
Additions to intangible assets		**(280)**	(259)
Net (acquisition) disposal of short-term investments		**(1,067)**	506
Other		**16**	105
		(5,386)	(3,321)
Financing activities			
Issuance of long-term debt		**2,176**	2,327
Repayment of long-term debt		**(2,083)**	(1,245)
Cash receipts arising from credit risk management	16	**5,016**	5,320
Cash payments arising from credit risk management	16	**(4,726)**	(4,962)
Net change in borrowings		**1**	(38)
Dividend paid		**(645)**	(1,958)
Other		**134**	(83)
		(127)	(639)
Foreign currency effect on cash and cash equivalents		**8**	(2)
Net change in cash and cash equivalents		**(488)**	806
Cash and cash equivalents, beginning of year		**2,183**	1,377
Cash and cash equivalents, end of year		**1,695**	2,183
Supplementary cash flow information	20		

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Years ended December 31
In millions of Canadian dollars

	2013	2012
Net result	**2,942**	860
Other comprehensive income		
Change in deferred (losses) gains on items designated as cash flow hedges	**(218)**	192
Reclassification to operations of deferred gains on items designated as cash flow hedges	**(105)**	(259)
	(323)	(67)
Comprehensive income	**2,619**	793

The accompanying notes are an integral part of the consolidated financial statements.

Years ended
December 31, 2013 and 2012

Amounts in tables are in millions of Canadian dollars, unless otherwise indicated.

Under the provisions of the Hydro-Québec Act, Hydro-Québec is mandated to supply power and to pursue endeavors in energy-related research and promotion, energy conversion and conservation, and any field connected with or related to power or energy. Hydro-Québec is required, in particular, to supply a base volume of up to 165 TWh a year of heritage pool electricity for the Québec market, as set out in the Act respecting the Régie de l'énergie. As a government corporation, Hydro-Québec is exempt from paying income taxes in Canada.

NOTE 1 SIGNIFICANT ACCOUNTING POLICIES

The Canadian Accounting Standards Board has authorized rate-regulated entities to defer the adoption of International Financial Reporting Standards (IFRS) until January 1, 2015. Since Hydro-Québec was entitled to exercise this deferral right, it opted to prepare its 2013 and 2012 consolidated financial statements in accordance with Canadian generally accepted accounting principles as set forth in Part V of the *CPA Canada Handbook*, "Pre-Changeover Accounting Standards" (Canadian GAAP).

Hydro-Québec's consolidated financial statements also reflect the decisions of the Régie de l'énergie (the Régie). These decisions may affect the timing of the recognition of certain transactions in the consolidated operations, resulting in the recognition of regulatory assets and liabilities, which Hydro-Québec considers it is likely to recover or settle subsequently through the rate-setting process.

REGULATION

The *Act respecting the Régie de l'énergie* grants the Régie exclusive authority to determine or modify the rates and conditions under which electricity is transmitted and distributed by Hydro-Québec. Hydro-Québec's electricity transmission and distribution activities in Québec are therefore regulated. Under this legislation, rates are set by reasoned decision of three commissioners after public hearings. Moreover, the Act stipulates that rates are determined on a basis that allows for recovery of the cost of service plus a reasonable return on the rate base.

The Régie and Hydro-Québec are both part of the Québec government reporting entity. However, the Régie is an independent, quasi-judicial economic regulatory agency accountable to the National Assembly of Québec through the Minister of Natural Resources.

In decision D-2012-021, the Régie authorized changes to certain accounting policies applied by the Transmission Provider and the Distributor for rate-setting purposes, effective in 2012, in order to ensure their conformity with IFRS. These changes concern the recognition of asset retirement obligations according to IAS 37, *Provisions, Contingent Liabilities and Contingent Assets*, and IFRIC 1, *Changes in Existing Decommissioning, Restoration and Similar Liabilities*, and the recognition of employee benefits according to IAS 19, *Employee Benefits*. In addition, the net amount of accrued benefit assets and liabilities is no longer included in the rate base. In decision D-2013-037, the Régie authorized the application of IAS 19R, *Employee Benefits*, for the Distributor's rate-setting purposes, effective in 2013.

Transmission

In decision D-2013-090, the Régie stated that it would process the Transmission Provider's 2013 and 2014 rate cases concurrently. In decision D-2012-164, it indicated that Hydro-Québec's power transmission rates approved for 2012 would be provisionally maintained for 2013. These rates were determined in decision D-2012-066 and became effective on January 1, 2012. The authorized return on the rate base was set at 6.84%, assuming a capitalization with 30% equity.

Distribution

Hydro-Québec's electricity rates were determined in decisions D-2013-043 and D-2012-035, in which the Régie authorized, respectively, an across-the-board rate increase of 2.41%, effective April 1, 2013, and an across-the-board rate reduction of 0.45%, effective April 1, 2012. The authorized return on the rate base was set at 6.38% in 2013 and 6.80% in 2012, assuming a capitalization with 35% equity.

SCOPE OF CONSOLIDATION

The consolidated financial statements include the accounts of Hydro-Québec, its subsidiaries and its joint ventures as well as those of variable interest entities where Hydro-Québec is the primary beneficiary. Interests in joint ventures are accounted for using the proportionate consolidation method.

USE OF ESTIMATES

The preparation of financial statements in accordance with Canadian GAAP requires that Management make estimates and assumptions that affect the amounts recognized as assets and liabilities, the disclosures regarding contingent assets and liabilities at the date of the consolidated financial statements and the amounts recognized as revenue and expenditure for the years at issue. The estimates relate, among other things, to revenue, which includes estimated amounts for electricity delivered but not billed; the useful life of property, plant and equipment and intangible assets for calculating the depreciation and amortization expense, cash flows; the expected timing of payments; and the discount rates used to determine asset retirement obligations and employee future benefits. These rates are based on actuarial and economic assumptions. Actual results could differ from those estimates and such differences could be significant.

REVENUE

Hydro-Québec supplies the Québec market with electricity and also sells power on wholesale markets in Canada and the United States. In addition, it is active in arbitraging transactions. Revenue from electricity sales and arbitraging transactions is recognized on delivery. Arbitraging transactions are recognized net of related electricity purchases.

Revenue also includes certain amounts that Hydro-Québec is entitled to receive from customers or is required to pay to them in the future. These amounts relate, among other things, to the supply of electricity in excess of the heritage pool, to transmission services and to climate conditions. These items give rise to financial assets and liabilities that are reported in Accounts receivable and other receivables and Other assets or in Accounts payable and accrued liabilities and Other liabilities, based on their maturities, which range from one to five years.

Other revenue is recognized on delivery of the goods or services.

FOREIGN CURRENCY TRANSLATION

Self-sustaining foreign operations

The financial statements of foreign operations that are self-sustaining in terms of financial and operational management are translated according to the current rate method using the foreign operations' currency as the measuring unit. Under this method, assets and liabilities are translated into Canadian dollars at the exchange rate in effect at the balance sheet date, and revenue and expenditure are translated at the average exchange rate in effect during the period. The exchange gains or losses resulting from the translation of the financial statements of these foreign operations are presented in Accumulated other comprehensive income under Equity on the balance sheet.

Integrated foreign operations and foreign currency transactions

In the case of foreign operations that are integrated in terms of financial and operational management, as well as foreign currency transactions, accounts stated in foreign currencies are translated according to the temporal method. Under this method, monetary assets and liabilities are translated into Canadian dollars at the exchange rate in effect at the balance sheet date, and non-monetary items are translated at the historical exchange rate. Revenue and expenditure arising from foreign currency transactions are translated into Canadian dollars at the exchange rate in effect at the transaction date. The exchange gains or losses resulting from the translation of monetary items are included in operations, unless they relate to hedging items for future sales in U.S. dollars, in which case they are recognized in Other comprehensive income until the period in which such sales are made.

FINANCIAL INSTRUMENTS

Financial instruments are measured at fair value on initial recognition. Their measurement in subsequent periods and the recognition of any changes in fair value depend on the category in which they are classified.

The following table presents the classification of financial instruments in the various categories:

Category	Financial Instruments
Financial assets and liabilities held for trading	
Designated	Cash and cash equivalents
Classified	Derivative instruments
Available-for-sale financial assets	Short-term investments
Loans and receivables	Accounts receivable and other receivables
	Government reimbursement for the 1998 ice storm, presented in Other assets
	Receivables presented in Other assets
Other financial liabilities	Borrowings
	Accounts payable and accrued liabilities
	Dividend payable
	Accrued interest
	Current portion of long-term debt
	Long-term debt
	Accounts payable presented in Other liabilities
	Perpetual debt

Financial assets and liabilities are offset when certain criteria are met. The net amount is therefore reported in the balance sheet when Hydro-Québec has a legally enforceable right to set off the recognized amounts and it intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously.

Financial assets and liabilities held for trading are recorded at fair value at the balance sheet date. Changes in fair value are recognized in operations for the period in which they occur, except in the case of derivative instruments designated as hedges in a cash flow hedging relationship.

Available-for-sale financial assets are recorded at fair value at the balance sheet date. Changes in fair value are recorded in Other comprehensive income until they are realized, at which time they are reclassified to operations. Interest on these assets, calculated using the effective interest method, is recognized in operations.

Loans and receivables, less any impairment losses, as well as other financial liabilities, are measured at amortized cost using the effective interest method. Amortized cost includes transaction costs, premiums and discounts, if applicable. Interest is recognized in operations.

Futures or forward contracts on non-financial items that can be settled on a net basis are recorded at the date of settlement if there is a probability of receipt or delivery in accordance with expected requirements.

As part of its integrated business risk management, Hydro-Québec uses various financial instruments to manage its market risk, consisting of currency risk, interest rate risk and risk resulting from fluctuating aluminum and energy prices. Hydro-Québec applies cash flow or fair value hedge accounting to eligible hedging relationships and formally documents these relationships. Among other things, this process involves associating derivative instruments with specific assets and liabilities on the balance sheet, or with probable anticipated transactions. Hydro-Québec also measures the effectiveness of hedging relationships initially and then monthly thereafter. In addition, for hedges of anticipated transactions, it regularly assesses the probability of the occurrence of those transactions designated as hedged items.

In the case of a cash flow hedge, the effective portion of changes in the fair value of an instrument designated as a hedge is recognized under Other comprehensive income, while the ineffective portion is immediately recognized in operations, under the line item affected by the hedged item. Amounts included in Accumulated other comprehensive income are reclassified to operations, also under the line item affected by the hedged item, during the periods in which the hedged item affects operations. If a derivative instrument no longer satisfies hedging conditions or is sold or liquidated, or if Hydro-Québec terminates its designation as a hedging item, hedge accounting ceases to be applied on a prospective basis. Previously recognized gains and losses continue to be carried forward to be recognized in operations during the same periods as the hedged item. If the hedged item ceases to exist, the gains or losses carried forward are immediately reclassified to operations.

In the case of a fair value hedge, changes in the fair value of the derivative instrument, including those related to the ineffective portion of the hedge, are recognized in operations under the line item affected by the hedged item. Offsetting changes in the fair value of the hedged item attributable to the hedged risk are recognized as adjustments to this item's carrying amount and are offset against operations.

In addition, an embedded derivative must be separated from its host contract and recognized at fair value on the balance sheet if certain conditions are met. Hydro-Québec has opted to apply this accounting treatment to all host contracts issued, acquired or substantively amended on or after January 1, 2003.

Hydro-Québec must classify the fair value measurements of financial instruments according to a three-level hierarchy, based on the type of inputs used in making these measurements:

- Level 1: Quoted prices on active markets for identical instruments;
- Level 2: Significant inputs and value drivers that are observable on markets; and
- Level 3: One or more significant inputs or value drivers that are not observable market data.

Cash, net of bank overdrafts, as well as cash equivalents, short-term investments and derivative instruments are recognized at fair value. Fair value is the amount of the consideration that would be agreed upon in an arm's-length transaction between knowledgeable, willing parties who are under no compulsion to act. Cash equivalents consist of investments with a maturity of three months or less from the date of acquisition. Investments with a maturity of more than three months are presented in Short-term investments.

Except for cash and measurements of exchange-traded derivative instruments, which are Level 1 measurements, fair value measurements for financial instruments are Level 2 measurements. These measurements are obtained by discounting future cash flows, which are estimated on the basis of the spot rates or the forward rates or prices (foreign exchange rates, interest rates, and aluminum or energy prices) in effect on the balance sheet date and take into account the credit risk assessment. The valuation techniques make use of observable market data.

MATERIALS, FUEL AND SUPPLIES

Inventories of materials, fuel and supplies are valued at the lower of cost and net realizable value. Cost is determined by the weighted average cost method.

PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are carried at cost, which comprises materials, labor, other costs directly related to construction activities, and financial expenses capitalized during construction. Property, plant and equipment also include draft-design costs for projects whose technical feasibility has been demonstrated, whose profitability has been estimated, and for which Management deems that it will in all likelihood have the necessary resources for completion. The discounted value of retirement obligations related to property, plant and equipment as well as that of agreements with local communities meeting the definition of a liability are added to the carrying amount of the property, plant and equipment concerned. Moreover, contributions from third parties are applied against the cost of the related property, plant and equipment.

Financial expenses capitalized to property, plant and equipment under construction are determined using the average cost of Hydro-Québec's long-term debt. When the property, plant and equipment under construction relate to regulated transmission and distribution activities, such financial expenses take return on equity into account. The portion that corresponds to return on equity is included in Revenue in consolidated operations.

Property, plant and equipment are depreciated over their useful life, using the straight-line method, starting in the month following the date of commissioning. The depreciation periods for the principal categories of property, plant and equipment are as follows:

Hydraulic generation	40 to 120 years
Thermal generation	15 to 50 years
Transmission substations and lines	30 to 70 years
Distribution substations and lines	25 to 60 years
Other property, plant and equipment	5 to 50 years

When property, plant and equipment are retired, their cost, net of accumulated depreciation and salvage value, is recognized in operations for the year.

Maintenance and repair costs are recognized in operations when incurred.

INTANGIBLE ASSETS

Intangible assets are recorded at cost. Financial expenses are capitalized over the development period.

The costs related to the Energy Efficiency Plan (EEP), and internally developed computer software and development costs are capitalized when they meet capitalization criteria.

Intangible assets with an indefinite useful life are not amortized. These assets are tested for impairment annually or more frequently if events indicate a potential impairment loss. The excess of the carrying amount over the fair value is recognized in operations for the period in which the impairment is determined.

Intangible assets with a finite useful life, namely the EEP, software and licences, development costs and patents, are amortized over their useful life according to the straight-line method over the following periods:

EEP	10 years
Software and licences	3 to 10 years
Development costs	5 years
Patents	20 years

IMPAIRMENT OF LONG-LIVED ASSETS

Hydro-Québec reviews the carrying amount of its property, plant and equipment and its amortizable intangible assets whenever events or changes in circumstances indicate that the expected undiscounted net cash flows could be lower than the carrying amount of the property and assets. An impairment loss corresponding to the amount by which the carrying amount exceeds fair value is recognized, if applicable.

INVESTMENTS

Investments in companies over which Hydro-Québec can exercise significant influence are accounted for on an equity basis. These investments are initially recognized at cost, and the carrying amount is increased or decreased by an amount equal to Hydro-Québec's share of the changes in the investees' net assets after the date of acquisition. Hydro-Québec's share of the investees' operations is recognized in the net result. Dividends received from the investees are applied against the carrying amount of the investment.

EMPLOYEE FUTURE BENEFITS

Hydro-Québec offers all its employees a contributory defined-benefit pension plan based on final pay, as well as other post-retirement and post-employment benefits.

The cost of pension benefits and other post-retirement benefits provided in exchange for current service is calculated according to the projected benefit method prorated on years of service. It is determined using a discount rate and is based on Management's best estimates, in particular concerning the expected return on plan assets, salary escalation, the increase in health care costs, and employees' retirement ages. Plan assets are measured at fair value at the balance sheet date.

In order to establish the cost of benefits and its employee future benefit obligations, Hydro-Québec has adopted the following policies:

- The discount rate is based on the average rate of the interest rate curve on the measurement date of high-quality Canadian corporate bonds and takes into account the expected cash flows associated with the accrued benefit obligations.
- Past service costs arising from plan amendments and transitional balances relating to the pension plan and post-retirement benefits as at January 1, 1999, are amortized using the straight-line method over periods not exceeding active employees' average remaining years of service, which was 12 years as at January 1, 2013 and 2012.
- Amortization of actuarial gains or losses is recognized in operations for the year if the unamortized net actuarial gain or loss at the beginning of the year exceeds 10% of the value of the accrued benefit obligations or 10% of the market-related value of the plan assets, whichever is greater. The amortization corresponds to the excess divided by active employees' average remaining years of service.
- The expected return on pension plan assets is based on a market-related value determined by using a five-year moving average value for equity securities and by measuring other asset classes at fair value.

ASSET RETIREMENT OBLIGATIONS

Hydro-Québec accounts for asset retirement obligations in the period in which the legal obligations with respect thereto arise, provided that a reasonable estimate of their fair value can be made. The corresponding costs of asset retirement are added to the carrying amount of the related long-lived asset and are amortized over its useful life. In subsequent financial years, any change due to the passage of time is recognized in operating expenses for the current year (accretion expense) and the corresponding amount is added to the carrying amount of the liability. Changes resulting from revisions to the timing or the amount of the undiscounted cash flows are recognized as an increase or decrease in the carrying amount of the liability arising from asset retirement obligations, and the corresponding amount is added to the carrying amount of the related asset or deducted up to a maximum of its carrying amount, with any excess then being recognized in operations. When the asset reaches the end of its useful life, any change is immediately recognized in operations. During the final settlement of the asset retirement obligation concerned, the difference between the balance of the obligation and the actual cost incurred is recognized as a gain or a loss in operations.

The cash flows required to settle asset retirement obligations are estimated on the basis of studies that use various assumptions concerning the methods and timing to be adopted for the retirement. Hydro-Québec periodically reviews the measurement of these obligations in light of the underlying assumptions and estimates, potential technological advances, and changes in applicable standards, laws and regulations.

NOTE 1 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

AGREEMENTS WITH LOCAL COMMUNITIES

Hydro-Québec has entered into various agreements with the local communities concerned by certain capital projects. The amounts under these agreements are recognized in Long-term debt if they fall within the definition of a liability, and the offsetting item is recognized in Property, plant and equipment. The recognized amounts are determined by discounting the future cash flows related to these agreements. The discount rate used is the interest rate on Hydro-Québec bonds at the initial recognition date. Subsequently, in the case of agreements with indexed cash flows, the cash flows are subject to an annual re-estimation that can result in a change in the discount rate.

RELATED PARTY TRANSACTIONS

In the normal course of business, Hydro-Québec enters into various business transactions, including electricity sales, with the Québec government and its agencies, as well as with other government corporations. These business transactions are measured at the exchange amount.

NOTE 2 EFFECTS OF RATE REGULATION ON THE CONSOLIDATED FINANCIAL STATEMENTS

The following information describes the impact on the consolidated financial statements of accounting policies and practices adopted by Hydro-Québec in accordance with the Régie's decisions with respect to regulated activities.

REGULATORY ASSETS

Costs related to the de-icing system at Lévis substation

Certain costs related to the Lévis substation de-icing system, designed in the wake of the 1998 ice storm to secure the transmission lines supplying the greater Québec area, were recognized in a separate account. These costs have been amortized using the straight-line method starting from the date of commissioning of the de-icing system, over a period corresponding to the average remaining useful life of the assets enhanced by the system. Financial expenses arising from these costs were capitalized at the rate of return authorized by the Régie on the rate base until such time as they were included in the rate base and amortization began. This accounting practice was authorized by the Régie in decision D-2004-175, which relates to Hydro-Québec's power transmission activities. Were these activities not regulated, the costs would have been recognized in operations for the year in which they were incurred, and the net result for 2013 and 2012 would have been $1 million higher.

Costs related to projects of more than $10 million pending approval

Costs related to projects of more than $10 million that were included in a rate application, but that are pending approval at the time the decision on the rate application is handed down, are recognized in a separate account until the projects are approved by the Régie and amortized over the subsequent financial year. Financial expenses arising from these costs are capitalized at the rate of return authorized by the Régie on the rate base until such time as amortization begins. This accounting practice was authorized by the Régie in decision D-2012-024, which relates to Hydro-Québec's power distribution activities. Were these activities not regulated, the costs would be recognized in operations for the year in which they are incurred, and the net result for 2013 would have been $14 million higher ($10 million lower in 2012).

REGULATORY ASSETS

	Expected years of amortization	2013	2012
Costs related to the de-icing system at Lévis substation	2014–2047	8	9
Costs related to projects of more than $10 million pending approval	–	–	14
Other	2014	1	3
		9	26
Current portion		1	16
		8	10

Risks and uncertainties

The risks and uncertainties related to the above regulatory assets are subject to periodic monitoring and assessment. Once Hydro-Québec considers that it is no longer likely that the net carrying amount of a regulatory asset will be taken into account in setting future rates, this amount is recognized in operations for the year in which the conclusion is reached.

OTHER REGULATORY PRACTICES

Under Régie decisions D-2002-95 and D-2003-93, the compensation granted by the Québec government for the 1998 ice storm was applied against the cost of newly constructed property, plant and equipment; it is amortized over the remaining life of the retired assets, with the exception of the portion equivalent to the unamortized cost of these assets, which is amortized over 10 years. The straight-line method is used in both cases. Were these activities not regulated, the compensation would be amortized over the useful life of the newly constructed property, plant and equipment.

In decisions D-2002-95 and D-2004-47, the Régie prescribed capitalizing financial expenses to property, plant and equipment under construction and intangible assets under development related to regulated activities, according to the authorized rates of return on the rate bases. These rates, which are set using methods approved by the Régie, take into account a component associated with the cost of the debt and a component associated with the return on equity. Were these activities not regulated, financial expenses would be capitalized using the average cost of Hydro-Québec's long-term debt.

Under Régie decisions D-2002-95 and D-2003-93, the cost of dismantling assets that were retired and replaced, net of the salvage value, is added to the cost of newly constructed assets. Under Régie decision D-2011-039, which relates to Hydro-Québec's power transmission activities, the costs of restoring sites associated with replaced assets are also added to the cost of newly constructed assets. Were these activities not regulated, the related costs would be charged to operations in the year in which they are incurred.

Under Régie decisions D-2006-76 and D-2006-76R, contributions received for relocation or modification projects relating to certain transmission grid assets are recognized in a separate account and applied against property, plant and equipment. These contributions are amortized over the average useful life of assets for each project, using the straight-line method. Were these activities not regulated, the contributions would be amortized over the useful life of each item of property, plant and equipment concerned.

Under Régie decisions D-2002-25, D-2002-288, D-2003-93 and D-2006-56, advertising and promotional costs, entertainment expenses, training costs and other EEP general expenses incurred until December 31, 2011, were recognized in the costs related to this intangible asset and will be amortized over 10 years on a straight-line basis. Were these activities not regulated, the costs and expenses would have been recognized in operations for the year in which they were incurred. As of January 1, 2012, under Régie decision D-2012-021, these costs are recognized in operations for the year in which they are incurred.

Under Régie decision D-2011-058, certain costs incurred for completion of the customer systems optimization project that had not been taken into account in setting rates and had been recognized in a separate account were amortized in 2012. Financial expenses arising from these costs were capitalized at the rate of return authorized by the Régie on the rate base until such time as amortization began. Were these activities not regulated, the costs would have been recognized in operations for the year in which they were incurred, and the net result would have been $10 million higher in 2012.

Finally, the legal and regulatory context in which Hydro-Québec operates gives it the right to receive from its customers or the obligation to pay to them, as the case may be, the amounts corresponding to any variance between the actual amount of certain specific items and the amount provided in rate cases for these items. These items therefore give rise to financial assets or liabilities. They include the supply of electricity in excess of the heritage pool (decisions D-2005-34, D-2005-132, D-2006-34, D-2007-12 and D-2008-024), fuel purchases (decision D-2009-016), native-load transmission service (decisions D-2003-93, D-2006-34, D-2007-12 and D-2008-024), climate conditions (decisions D-2006-34 and D-2009-016), point-to-point transmission service (decisions D-2007-08 and D-2008-019), pension costs (decisions D-2011-028, D-2011-039, D-2012-024 and D-2012-059), costs of major outages (decisions D-2009-016 and D-2013-037) and the expense related to the activities of the Bureau de l'efficacité et de l'innovation énergétiques (decision D-2013-037).

NOTE 3 REVENUE

	2013	2012
Electricity sales	**12,610**	11,636
Other	**271**	500
	12,881	12,136

NOTE 4 DEPRECIATION AND AMORTIZATION

	2013	2012
Property, plant and equipment[a]	**2,067**	2,047
Intangible assets	**274**	241
Regulatory assets	**17**	19
Retirement of capital assets	**134**	108
	2,492	2,415[b]

a) The revision of the useful life of property, plant and equipment in 2013 did not have a major impact on the depreciation expense for the year. In 2012, the revision of the useful life of property, plant and equipment resulted in a $181-million decrease in the depreciation expense. As part of this revision, the maximum depreciation period for some hydraulic generation assets increased from 100 to 120 years, while the maximum period for certain transmission line and substation assets increased from 50 to 70 years, and for certain distribution line and substation assets, from 40 to 60 years.

b) The depreciation and amortization expense presented in the 2012 consolidated statement of cash flows includes $14 million for assets related to discontinued operations.

NOTE 5 TAXES

	2013	2012
Water-power royalties[a]	674	621
Public utilities tax[b]	245	252
Municipal, school and other taxes[c]	81	124
	1,000	997

a) Water-power royalties payable to the Québec government totaled $669 million in 2013 ($617 million in 2012), including a balance due of $52 million as at December 31, 2013 ($23 million as at December 31, 2012).

b) The public utilities tax is paid to the Québec government.

c) Including $30 million payable to the Québec government under the *Act respecting Energy Efficiency and Innovation* in 2013 ($37 million in 2012) and $49 million payable to the Québec government under the *Act to establish the Northern Development Fund* in 2012.

NOTE 6 FINANCIAL EXPENSES

	2013	2012
Interest on debt securities	2,585	2,576
Net exchange (gain) loss	(21)	2
Guarantee fees related to debt securities[a]	200	197
	2,764	2,775
Less		
Capitalized financial expenses	302	306
Net investment income	29	28
	331	334
	2,433	2,441

a) Guarantee fees related to debt securities are paid to the Québec government.

NOTE 7 DISCONTINUED OPERATIONS

In September 2012, the decision was made to abandon the project to refurbish Gentilly-2 nuclear generating station and to terminate all nuclear power operations. The facility continued to generate electricity until the end of 2012, in accordance with the terms and conditions of its operating licence, after which time Hydro-Québec started to prepare it for dormancy with a view to dismantling it around the year 2060.

Gentilly-2 generating station's operating result is presented under Discontinued operations in the consolidated statements of operations. For segmented information purposes, the discontinued operations are classified under Generation and Transmission.

The abandonment of the refurbishment project led to the write-off of the property, plant and equipment under construction for this project, for a total amount of $990 million.

Since the refurbishment project was abandoned, Hydro-Québec also had to test all of its nuclear generation assets for impairment. The carrying amount of these assets, including the increase in the asset retirement obligations related to the facility's dismantling, was compared to their fair value, which was determined using the discounted cash flow method. An impairment charge of $827 million was recognized, reducing the carrying amount of nuclear generation assets to zero.

The following table provides a breakdown of the result from discontinued operations:

	2013	2012
Operating result		
Revenue	–	144
Expenditure	(4)	203
	4	(59)
Write-off of property, plant and equipment under construction	–	(990)
Impairment of nuclear generating station assets		
Property, plant and equipment	–	(795)[a]
Materials, fuel and supplies	–	(32)
	–	(827)
	4	(1,876)

a) Including a $365-million increase in the asset retirement obligations related to the facility's dismantling.

NOTE 8 PROPERTY, PLANT AND EQUIPMENT

	2013			
	In service	Accumulated depreciation	Under construction	Net carrying amount
Generation				
Hydraulic	41,782	15,509	3,614	**29,887**
Thermal	708	679	–	**29**
Other	737	447	11	**301**
	43,227	16,635	3,625	**30,217**
Transmission				
Substations and lines	26,304	9,917	1,702	**18,089**
Other	2,330	1,340	101	**1,091**
	28,634	11,257	1,803	**19,180**
Distribution				
Substations and lines	13,111	5,701	370	**7,780**
Other	2,977	1,672	135	**1,440**
	16,088	7,373	505	**9,220**
Construction	32	18	–	**14**
Corporate and Other Activities	1,135	774	85	**446**
	89,116	36,057	6,018	**59,077**

	2012			
	In service[a]	Accumulated depreciation	Under construction	Net carrying amount
Generation				
Hydraulic	40,306	14,850	3,753	29,209
Thermal	784	737	–	47
Nuclear[a]	2,329	2,329	–	–
Other[a]	775	478	20	317
	44,194	18,394	3,773	29,573
Transmission				
Substations and lines[a]	25,177	9,322	1,215	17,070
Other[a]	2,273	1,313	105	1,065
	27,450	10,635	1,320	18,135
Distribution				
Substations and lines	12,659	5,382	358	7,635
Other	2,862	1,662	168	1,368
	15,521	7,044	526	9,003
Construction	30	18	1	13
Corporate and Other Activities	1,113	738	75	450
	88,308	36,829	5,695	57,174

a) In 2012, the abandonment of nuclear power operations led to the recognition of an impairment charge of $795 million for property, plant and equipment in service and to a write-off of $990 million for property, plant and equipment under construction, as indicated in Note 7, Discontinued Operations.

NOTE 9 INTANGIBLE ASSETS

	2013			2012		
	Cost	Accumulated amortization	Net carrying amount	Cost	Accumulated amortization	Net carrying amount
Intangible assets						
Subject to amortization						
EEP	1,662	696	**966**	1,548	555	993
Software and licences	1,645	1,014	**631**	1,495	949	546
Development costs	58	28	**30**	52	28	24
Patents	24	11	**13**	23	9	14
	3,389	1,749	**1,640**	3,118	1,541	1,577
Not subject to amortization						
Servitudes			**396**			382
Rights			**287**			282
			683			664
			2,323			2,241

The additions of internally generated intangible assets subject to amortization totaled $277 million in 2013 ($261 million in 2012).

NOTE 10 INVESTMENTS

	2013	2012
At equity		
Churchill Falls (Labrador) Corporation Limited	**125**	115
CITEQ inc.	**(5)**	(5)
	120	110
Other	**26**	24
	146	134

NOTE 11 OTHER ASSETS

	Note	2013	2012
Accrued benefit assets	21	**3,886**	3,380
Government reimbursement for the 1998 ice storm[a]		**66**	59
Receivables[b]		**281**	265
Other		**25**	27
		4,258	3,731

a) In accordance with the terms and conditions in effect since January 1, 2013, the full amount of the reimbursement will be paid no later than October 15, 2019, and interest calculated at the Bankers' Acceptance Rate for a 12-month term will be paid on an annual basis. In 2012, the full amount of the reimbursement was payable in quarterly installments of $3 million, including interest at an annual rate of 7.2%. No current portion is presented as at December 31, 2013 ($9 million as at December 31, 2012, presented under Accounts receivable and other receivables). The fair value of this financial asset, including the current portion, was $66 million as at December 31, 2013 ($81 million as at December 31, 2012).

b) Including assets of $281 million related to variances between the actual amount of certain specific items and the amount provided in rate cases for these items ($262 million as at December 31, 2012). Financial expenses related to these assets are capitalized at the rate of return authorized by the Régie, such that their carrying amount approximates their fair value. They are recovered over a one- to five-year period.

NOTE 12 ASSET RETIREMENT OBLIGATIONS

Liabilities arising from asset retirement obligations relate to the costs of dismantling Gentilly-2 nuclear generating station, the removal of spent nuclear fuel resulting from its operation, and the dismantling of thermal generating stations and certain fuel tanks and transmission substations. In 2012, following the abandonment of the project to refurbish Gentilly-2 generating station, the key assumptions underlying the calculation parameters and the estimated amount of the obligations related to the dismantling of the facility at the end of its useful life were reviewed. The main impact of this review was to advance the start of work by 27 years.

The aggregate carrying amount of asset retirement obligations is as follows:

	2013			
	Dismantling of nuclear generating station[a]	Removal of spent nuclear fuel[a]	Dismantling of other assets	Total
Balance, beginning of year	588	229	135	**952**
Liabilities incurred	–	–	50	**50**
Accretion expense	33	20	6	**59**
Liabilities settled	(92)	(1)	(17)	**(110)**
Revision of estimated cash flows and expected timing of payments	–	–	1	**1**
Balance, end of year	529	248	175	**952**
Less				
Current portion	93	4	21	**118**
	436	244	154	**834**

	2012			
	Dismantling of nuclear generating station[a]	Removal of spent nuclear fuel[a]	Dismantling of other assets	Total
Balance, beginning of year	208	201	131	540
Liabilities incurred	–	12	–	12
Accretion expense	15	18	4	37
Liabilities settled	–	(2)	(5)	(7)
Revision of estimated cash flows and expected timing of payments	365	–	5	370
Balance, end of year	588	229	135	952
Less				
Current portion	122	3	53	178
	466	226	82	774

a) The Québec government has provided an irrevocable financial guarantee of up to $685 million to the Canadian Nuclear Safety Commission for the performance of Hydro-Québec's obligations with regard to the cost of dismantling Gentilly-2 generating station and the removal of spent nuclear fuel.

The carrying amount of the asset retirement obligations is based on the following key assumptions:

	Dismantling of nuclear generating station	Removal of spent nuclear fuel	Dismantling of other assets
Estimated cash flows (in constant dollars) required to settle the obligations[a]			
As at December 31, 2013	1,232	677	213
As at December 31, 2012	1,192	663	172
Expected timing of payment of the cash flows required to settle the obligations			
As at December 31, 2013	Between 2014 and 2066	Between 2014 and 2164	Between 2014 and 2092
As at December 31, 2012	Between 2013 and 2062	Between 2013 and 2164	Between 2013 and 2092
Credit quality–adjusted, risk free rate (%)			
Initial recognition of obligations	6.4	6.4	Between 1.0 and 6.4
Subsequent recognition of obligations	Between 4.3 and 5.7	Between 3.6 and 5.7	Between 1.1 and 4.4

a) Inflation rates varying between 1.9% and 3.7% were used to determine the asset retirement obligations.

NOTE 12 ASSET RETIREMENT OBLIGATIONS (CONTINUED)

HYDRO-QUÉBEC TRUST FOR MANAGEMENT OF NUCLEAR FUEL WASTE

Under the *Nuclear Fuel Waste Act* (NFWA), which came into force in 2002, the owners of nuclear fuel waste in Canada were required to set up a management organization, the Nuclear Waste Management Organization, and each of them was required to establish a trust fund to finance the cost of long-term management of its nuclear fuel waste.

In April 2009, the Government of Canada approved a formula for financing the costs of the approach adopted for long-term nuclear fuel waste management. The amounts deposited in the trust funds can only be used to finance the implementation of this approach.

Hydro-Québec has made all the payments required under the NFWA. As at December 31, 2013, the investments held in the Hydro-Québec trust fund were composed of Hydro-Québec securities, the fair value of which totaled $117 million ($112 million as at December 31, 2012).

The Hydro-Québec Trust for Management of Nuclear Fuel Waste is considered a variable interest entity of which Hydro-Québec is the primary beneficiary.

NOTE 13 LONG-TERM DEBT

Long-term debt is mainly composed of bonds, medium-term notes and other debts, including liabilities under agreements entered into with local communities. The following table presents a breakdown of the debt at amortized cost, including the current portion, by currency at the time of issue and at the time of repayment. Currency swaps and forward contracts traded for currency risk management purposes related to long-term debt were taken into account in determining the percentages of debt by currency at the time of repayment.

	2013				2012			
			At time of issue	At time of repayment			At time of issue	At time of repayment
	In Canadian dollars and other currencies	At closing exchange rates as at the balance sheet date	%	%	In Canadian dollars and other currencies	At closing exchange rates as at the balance sheet date	%	%
Hydro-Québec's debt								
Canadian dollars[a]	35,058	**35,058**	**80**	**100**	33,681	33,681	79	99
U.S. dollars	8,091	**8,601**	**19**	**–**	8,757	8,705	20	1[b]
Other currencies								
Euros	60	**88**	**–**	**–**	60	79	–	–
Pounds sterling	199	**352**	**1**	**–**	199	322	1	–
Yen	1,000	**10**	**–**	**–**	1,000	11		–
		44,109				42,798		
Subsidiaries' debt								
U.S. dollars	10	**11**	**–**	**–**	14	14	–	–
		44,120	**100**	**100**		42,812	100	100
Plus								
Adjustment for fair-value hedged risk		**104**				437		
		44,224				43,249		
Less								
Current portion		**1,157**				694		
		43,067				42,555		

a) Including non-interest-bearing debts other than bonds and medium-term notes for a discounted amount of $1,123 million as at December 31, 2013 ($1,113 million as at December 31, 2012).

b) 100% of which were designated as hedges for U.S.-dollar sales.

INTEREST RATES

The following table shows interest rates, which take into account stated interest rates on bonds and medium-term notes, including premiums, discounts and issue expenses, as well as the effect of swaps traded for currency risk and interest rate risk management purposes related to long-term debt:

%				2013	2012
Maturity	Canadian dollars	U.S. dollars	Other currencies	Weighted average	Weighted average
1 to 5 years	2.26	1.47	9.20	**2.28**	2.65
6 to 10 years	10.06	9.09	–	**9.76**	9.66
11 to 15 years	7.50	8.27	–	**8.27**	8.30
16 to 20 years	3.70	9.84	–	**7.55**	7.52
21 to 25 years	5.62	–	–	**5.62**	5.62
26 to 30 years	5.11	–	–	**5.11**	5.11
31 to 35 years	4.89	–	–	**4.89**	4.89
36 to 40 years	4.31	–	–	**4.31**	4.35
41 to 45 years	–	–	–	**–**	–
46 to 50 years	6.53	–	–	**6.53**	6.53
51 to 55 years	–	–	–	**–**	–
Weighted average	5.10	8.47	9.20	**5.44**	5.54

As at December 31, 2013, the floating rate portion of long-term debt amounted to 9.8%, or 10.4% including perpetual debt (9.0%, or 9.6% including perpetual debt, as at December 31, 2012).

FAIR VALUE

As at December 31, 2013, the fair value of the long-term debt, including the current portion, amounted to $54,556 million ($58,894 million as at December 31, 2012). Including swaps and forward contracts traded for currency risk and interest rate risk management purposes related to long-term debt, it totaled $55,027 million ($59,471 million as at December 31, 2012). Fair value is obtained by discounting future cash flows, and is calculated on the basis of forward interest rates derived from interest rates at the balance sheet date for similar instruments traded on capital markets. Changes in fair value reflect sensitivity to capital market interest rates. However, Management's primary intention is to hold these debt securities until maturity.

CREDIT FACILITY AND LINES OF CREDIT

Hydro-Québec has an undrawn credit facility of US$2,000 million ($2,127 million), including a US$750-million ($798 million) swing loan, which will expire in 2018. Any debt securities will bear interest at a rate based on the London Interbank Offered Rate (LIBOR), except for the swing loan, which is at the U.S. base rate. Hydro-Québec also has access to undrawn operating lines of credit totaling $434 million, which are renewed automatically in the absence of notice to the contrary and bear interest at the prime rate.

NOTE 14 OTHER LIABILITIES

	Note	2013	2012
Accrued benefit liabilities	21	**909**	847
Accounts payable[a]		**158**	156
		1,067	1,003

a) Including a balance of $20 million as at December 31, 2013 ($29 million as at December 31, 2012) payable to the Québec government under the *Act to establish the Northern Development Fund*. The current portion, presented under Accounts payable and accrued liabilities, totaled $10 million as at December 31, 2013 and 2012. These amounts will be paid in installments of $10 million per year from 2014 to 2016.

NOTE 15 PERPETUAL DEBT

Perpetual notes in the amount of $253 million (US$238 million) as at December 31, 2013, and of $275 million (US$276 million) as at December 31, 2012, bear interest at LIBOR, plus 0.0625%, as calculated semiannually. The notes are redeemable at Hydro-Québec's option. In 2013, portions totaling $40 million (US$38 million) were repurchased on the secondary market and then canceled. In 2012, none of the notes were redeemed. Various derivative instruments are used to mitigate the currency risk associated with this debt.

As at December 31, 2013 and 2012, the rates applicable to the perpetual notes were 0.4% and 0.8%, respectively. As at December 31, 2013, the fair value of these notes was $214 million ($232 million as at December 31, 2012). Fair value is obtained by discounting future cash flows, and is calculated on the basis of forward interest rates derived from interest rates at the balance sheet date for similar instruments traded on capital markets.

NOTE 16 FINANCIAL INSTRUMENTS

In the course of its operations, Hydro-Québec carries out transactions that expose it to certain financial risks, such as market, liquidity and credit risk. Exposure to such risks and the impact on results are significantly reduced through careful monitoring and implementation of strategies that include the use of derivative instruments.

MARKET RISK

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate as a result of changes in market prices. Hydro-Québec is exposed to three main types of market risk: currency risk, interest rate risk and risk associated with aluminum and energy prices. Active integrated management of these three types of risk aims to limit their impact on results through mitigation measures so that exposure to each risk is reduced to an acceptable level.

MANAGEMENT OF LONG-TERM RISK

Management of risk associated with sales in U.S. dollars

Currency risk – Hydro-Québec uses currency swaps and a portion of its U.S. dollar–denominated debt to manage currency risk associated with probable U.S.-dollar sales, designating them as cash flow hedges. The impact of these hedging transactions on results is recognized in Revenue.

Management of risk associated with debt

Currency risk and interest rate risk – Hydro-Québec uses currency swaps and forward contracts to manage the currency risk associated with long-term debt and perpetual debt, as well as forward contracts and interest-rate swaps to modify long-term exposure to interest rate risk. When designated as hedging items, these derivative instruments are recognized as cash flow hedges or fair value hedges, depending on the risk hedged. The impact on results of foreign currency hedging transactions and those associated with debt interest rates is recognized in Financial expenses.

The following table shows the notional amounts of swaps and forward contracts used to manage risk associated with U.S.-dollar sales and with the debt, expressed in Canadian dollars and foreign currencies:

					2013[a]	2012[a]
Maturity	1 to 5 years	6 to 10 years	11 to 15 years	16 to 20 years	Total	Total
Swaps						
Canadian dollars	223	(2,381)	(2,292)	(2,054)	**(6,504)**	(6,441)
U.S. dollars	(12)	2,030	1,950	1,750	**5,718**	5,806
Other currencies						
Euros	61	–	–	–	**61**	61
Pounds sterling	200	–	–	–	**200**	200
Yen	1,000	–	–	–	**1,000**	1,000
Forward contracts						
U.S. dollars	2,241	–	–	–	**2,241**	2,280

a) Figures in parentheses represent amounts to be paid.

The following table shows the fair value of swaps and forward contracts used to manage risk associated with U.S.-dollar sales and with the debt, expressed in Canadian dollars:

	2013	2012
Derivative instruments designated as cash flow hedges for U.S.-dollar sales[a]	**172**	217
Derivative instruments designated as cash flow hedges for debt	**(1,079)**	(1,802)
Derivative instruments designated as fair value hedges for debt	**190**	507
	(717)	(1,078)
Derivative instruments not designated as hedges[b]	**620**	920
	(97)	(158)

a) Apart from these derivative instruments, a portion of the long-term debt, with a nominal amount of US$88 million as at December 31, 2013 (US$351 million as at December 31, 2012), was also designated as a cash flow hedge for U.S.-dollar sales.

b) These instruments were traded as part of Hydro-Québec's risk management, and $419 million was in consideration of amounts received or disbursed with respect to credit risk mitigation agreements in 2013 ($708 million in 2012).

MANAGEMENT OF SHORT-TERM RISK

Currency risk – Hydro-Québec uses forward contracts to manage its foreign currency risk exposure over the short term. When designated as hedging items, these derivative instruments are recognized as cash flow hedges. The impact of currency risk hedging transactions on results is recognized in the line item affected by the hedged item, namely Revenue, Electricity and fuel purchases, or Financial expenses. The nominal amount of open positions as at December 31, 2013, was US$509 million in sales contracts (US$12 million as at December 31, 2012).

Interest rate risk – Hydro-Québec uses forward rate agreements to manage short-term interest rate risk. When designated as hedging items, these derivative instruments are recognized as cash flow hedges. The impact on results of transactions to hedge short-term interest rate risk is recognized in Financial expenses.

Price risk – Hydro-Québec uses mainly swaps and commodity futures to manage risk resulting from fluctuations in energy and aluminum prices. When designated as hedging items, these derivative instruments are recognized as cash flow hedges. The impact on results of transactions to hedge the risk of variability in energy and aluminum prices is recognized in the line item affected by the hedged item, namely Revenue or Electricity and fuel purchases. Hydro-Québec has traded electricity swaps for which open positions as at December 31, 2013, were 15.6 TWh (17.0 TWh as at December 31, 2012) and natural gas futures for which open positions as at December 31, 2013, totaled 4.1 million MMBtu (1.4 million MMBtu as at December 31, 2012). As at December 31, 2013, it had no open positions to hedge the risk of variability in aluminum prices (150,000 tonnes as at December 31, 2012).

The fair value of derivative instruments used to manage short-term financial risks, depending on whether or not they are designated as hedges, is shown in the table below:

	2013	2012
Derivative instruments designated as cash flow hedges	(230)	(18)
Derivative instruments not designated as hedges	(2)	18
	(232)[a,b]	– [a]

a) This amount includes financial instruments measured on the basis of quoted stock market prices (Level 1) of $1 million (nil in 2012).

b) The amounts paid to clearing agents pursuant to margin calls related to the derivative instruments traded totaled $248 million as at December 31, 2013 ($11 million as at December 31, 2012). These amounts, which are subject to restrictions, are presented under Cash and cash equivalents.

EFFECT OF HEDGES

Effect of hedges on results

Effect of cash flow hedges

As at December 31, 2013, the net loss related to the ineffectiveness of cash flow hedges recognized in operations totaled $2 million ($7 million as at December 31, 2012).

As at December 31, 2013, Hydro-Québec estimated at $6 million the amount of net losses presented in Accumulated other comprehensive income that would be reclassified to operations in the next 12 months (net gain of $191 million as at December 31, 2012).

In 2013, Hydro-Québec reclassified a net loss of $7 million from Accumulated other comprehensive income to operations (nil in 2012) as a result of the discontinuance of cash flow hedges.

As at December 31, 2013, the maximum period during which Hydro-Québec hedged its exposure to the variability of cash flows related to anticipated transactions was three years (four years as at December 31, 2012).

Effect of fair value hedges

As at December 31, 2013, the net loss related to the ineffectiveness of fair value hedges recognized in operations totaled $5 million (net gain of $11 million as at December 31, 2012).

Effect of revaluation of derivative instruments not designated as hedges

As at December 31, 2013, the net gain recognized in operations as a result of the revaluation, at fair value, of derivative instruments to which hedge accounting was not applied totaled $122 million (net loss of $23 million as at December 31, 2012). These instruments are essentially related to risk management transactions.

Sensitivity analyses

The risks associated with variability in foreign exchange rates, interest rates, and aluminum and energy prices are the subject of integrated management aimed at limiting the impact of such risks on results. Most of the derivative instruments traded are designated as cash flow hedges or fair value hedges and therefore reduce the volatility of results, except for the ineffective portion of the hedges, which is insignificant. Derivative instruments which are not designated as hedges, but which nonetheless serve to hedge at risk opposite positions, also reduce the volatility of results. The sensitivity of results is thus limited to net exposure to unhedged risks.

As at December 31, 2013, had the exchange rate (C$/US$1) been 5% higher or lower, the net result would have been $14 million higher or lower, respectively ($12 million as at December 31, 2012), while Other comprehensive income would have been $125 million higher or lower, respectively ($166 million as at December 31, 2012). The analysis is based on financial assets and liabilities denominated in U.S. dollars, including a cash and cash equivalents amount of US$246 million (US$84 million as at December 31, 2012).

As at December 31, 2013, had interest rates been 50 basis points higher or lower, the net result would have been $3 million higher or $4 million lower, respectively ($3 million higher or lower as at December 31, 2012), while Other comprehensive income would have been $52 million higher or $56 million lower, respectively ($85 million higher or $88 million lower as at December 31, 2012). The analysis is based on cash equivalents, short-term investments, borrowings and floating-rate debt as well as on interest rate-sensitive derivative instruments.

As at December 31, 2013, had the price of aluminum been 5% higher or lower, the impact on the net result would have been nil ($1 million higher or lower, respectively, as at December 31, 2012), and the impact on Other comprehensive income would also have been nil ($16 million higher or lower, respectively, as at December 31, 2012).

LIQUIDITY RISK

Liquidity risk is the risk that an entity will have difficulty meeting commitments related to its financial liabilities.

Hydro-Québec's exposure to this risk is reduced by a large volume of cash flows from operating activities, a diversified portfolio of highly liquid or readily convertible instruments traded with high-quality counterparties, preauthorized sources of financing, the quality of Hydro-Québec's signature on financial markets, diversified sources of financing and its management of the proportions of floating-rate debt and debt repayable in foreign currency.

Moreover, as at December 31, 2013, $41,085 million in long-term debt, perpetual debt and borrowings, net of the sinking fund, was guaranteed by the Québec government ($39,966 million as at December 31, 2012).

Maturities of financial liabilities are presented in the following table. The amounts reported are contractual undiscounted cash flows, representing payments of principal and interest for financial liabilities as at December 31, 2013.

Maturity	Borrowings[a]	Accounts payable and accrued liabilities	Dividend payable	Long-term debt	Derivative instruments[b]
2014	23	1,741	2,207	2,552	702
2015	–	41	–	4,785	265
2016	–	31	–	3,916	97
2017	–	31	–	3,381	77
2018	–	–	–	3,422	68
1 to 5 years	23	1,844	2,207	19,056	1,209
6 to 10 years	–	–	–	18,221	543
11 to 15 years	–	–	–	9,623[c]	448
16 to 20 years	–	–	–	9,794	255
21 to 25 years	–	–	–	10,256	–
26 to 30 years	–	–	–	8,557	–
31 to 35 years	–	–	–	8,732	–
36 to 40 years	–	–	–	9,309	–
41 to 45 years	–	–	–	1,667	–
46 to 50 years	–	–	–	1,037	–
51 to 55 years	–	–	–	268	–
56 years and over	–	–	–	26,943	–
Total	**23**	**1,844**	**2,207**	**123,463**	**2,455**
Carrying amount	**23**[d]	**1,844**[d,e]	**2,207**[d]	**44,224**[f]	**1,871**

a) As at December 31, 2013, the weighted average interest rate on interest-bearing borrowings was 1.13% (1.13% as at December 31, 2012).

b) Agreements entered into with certain counterparties to limit the market value of these financial instruments could result in cash receipts or payments at dates different from the initially scheduled maturity.

c) Certain debts carry sinking fund requirements. An amount of $594 million ($594 million as at December 31, 2012) was reported under Short-term investments for this purpose.

d) Because of their short-term maturities, the carrying amount of these financial liabilities approximates their fair value.

e) Of this amount, $1,741 million was recorded in Accounts payable and accrued liabilities, and $103 million in Other liabilities.

f) Including current portion.

Contractual maturities of perpetual debt, whose terms and conditions are described in Note 15, Perpetual Debt, result in semiannual interest flows.

CREDIT RISK

Credit risk is the risk that one party to a financial asset will fail to meet its obligations.

Hydro-Québec is exposed to credit risk related to cash and cash equivalents, short-term investments and derivative instruments traded with financial institutions. It is also exposed to credit risk related to accounts receivable and other receivables, which arises primarily from its day-to-day electricity sales in and outside Québec. Credit risk is limited to the carrying amount presented under assets on the balance sheet, which approximates fair value.

Cash and cash equivalents, short-term investments and derivative instruments

In order to reduce its credit risk exposure, Hydro-Québec deals with Canadian and international issuers and financial institutions with high credit ratings. In addition, it applies policies to limit risk concentration as well as various monitoring programs and sets credit limits for each counterparty. Through prior agreements, it can also limit the market value of the main derivative instrument portfolios. Any variation in market value beyond the agreed-upon limit results in a cash receipt or payment. As at December 31, 2013, substantially all counterparties dealing with Hydro-Québec had a credit rating of A- or better, and none of them had defaulted on their obligations to Hydro-Québec.

Accounts receivable and other receivables

Exposure to credit risk from electricity sales is limited due to Hydro-Québec's large and diverse customer base. Management believes that Hydro-Québec is not exposed to a significant credit risk, particularly because sales in Québec are billed at rates that allow for recovery of costs based on the terms and conditions set by the Régie. Moreover, Hydro-Québec holds as collateral customer deposits totaling $98 million ($92 million as at December 31, 2012), of which $24 million ($25 million as at December 31, 2012) is recognized in Accounts payable and accrued liabilities and $74 million ($67 million as at December 31, 2012) in Other liabilities.

The value of accounts receivable, by age and net of the related allowance for doubtful accounts, is presented in the table below:

	2013	2012
Accounts receivable		
Under 30 days[a]	**1,664**	1,368
30 to 60 days	**50**	41
61 to 90 days	**21**	16
Over 90 days	**138**	137
	1,873	1,562
Other receivables[b]	**304**	349
Accounts receivable and other receivables[c]	**2,177**	1,911

a) Including unbilled electricity deliveries, which totaled $1,309 million as at December 31, 2013 ($1,192 million as at December 31, 2012).

b) Including a $67-million financial guarantee ($60 million in 2012) covering certain derivative instruments held at year end.

c) Including US$180 million (US$148 million in 2012) translated at the exchange rate in effect at the balance sheet date.

In 2013, the allowance for doubtful accounts increased by $12 million ($4 million in 2012) to $328 million as at December 31 ($316 million as at December 31, 2012). The allowance is based on a specific percentage deemed appropriate for each account age group and customer standing.

NOTE 17 INTERESTS IN JOINT VENTURES

The proportionate share of the joint venture items included in the consolidated financial statements is presented in the table below. These joint ventures consist of the interests managed by Hydro-Québec Production and the Groupe – Technologie.

	2013	2012
Operations		
Revenue	**169**	143
Expenditure and financial expenses	**141**	76
Net result	**28**	67
Balance Sheets		
Current assets	**35**	27
Long-term assets	**624**	645
Current liabilities	**43**	14
Long-term liabilities	**–**	12
Net assets	**616**	646
Cash Flows		
Operating activities	**80**	82
Investing activities	**(7)**	(7)
Financing activities	**(65)**	(68)
Net change in cash and cash equivalents	**8**	7

NOTE 18 EQUITY

SHARE CAPITAL

The authorized share capital consists of 50,000,000 shares with a par value of $100 each, of which 43,741,090 shares were issued and paid up as at December 31, 2013 and 2012.

RETAINED EARNINGS

Under the *Hydro-Québec Act*, the dividends to be paid by Hydro-Québec are declared once a year by the Québec government, which also determines the terms and conditions of payment. For a given financial year, the dividend cannot exceed the distributable surplus, equal to 75% of the net result. This calculation is based on the consolidated financial statements. However, in respect of a given financial year, no dividend may be declared in an amount that would have the effect of reducing the capitalization rate to less than 25% at the end of the year. All or a portion of the distributable surplus that has not been subject to a dividend declaration may no longer be distributed to the shareholder as a dividend.

For 2013, the dividend is $2,207 million ($645 million for 2012).

ACCUMULATED OTHER COMPREHENSIVE INCOME

CASH FLOW HEDGES

	2013	2012
Balance, beginning of year	**(225)**	(158)
Change for the year	**(323)**	(67)
Balance, end of year	**(548)**	(225)

NOTE 19 CAPITAL MANAGEMENT

Hydro-Québec manages its capital in such a way as to meet its shareholder's expectations, safeguard its funds at all times and sustain its growth. It fosters a management environment allowing it to enhance the long-term value of its assets and equity, ensure its financial sustainability, preserve its financing capability and safeguard its funds and securities.

In addition to equity, capital includes long-term debt, less the sinking fund, plus perpetual debt, borrowings and derivative instruments.

Hydro-Québec uses its capitalization rate to monitor its capital structure. It aims to maintain capitalization at no less than 25%.

CAPITALIZATION

	2013	2012
Equity	**19,394**	18,982
Long-term debt, including current portion	**44,224**	43,249
Sinking fund[a]	**(594)**	(594)
Perpetual debt	**253**	275
Borrowings	**23**	19
Derivative instruments	**329**	158
Total	**63,629**	62,089
Capitalization rate (%)[b]	**30.5**	30.6

a) The sinking fund is reported under Short-term investments.

b) Equity divided by the sum of equity, long-term debt, current portion of long-term debt, perpetual debt, borrowings and derivative instrument liabilities, less derivative instrument assets and sinking fund.

In 2013, Hydro-Québec's capital management objectives were unchanged from 2012.

NOTE 20 SUPPLEMENTARY CASH FLOW INFORMATION

	2013	2012
Change in non-cash working capital items		
Accounts receivable and other receivables	**(259)**	(172)
Materials, fuel and supplies	**(17)**	25
Accounts payable and accrued liabilities	**128**	14
Accrued interest	**17**	(67)
	(131)	(200)
Investing activities not affecting cash		
Increase in property, plant and equipment and intangible assets	**110**	616
Interest paid	**2,041**	1,968

NOTE 21 EMPLOYEE FUTURE BENEFITS

Hydro-Québec's pension plan (the Pension Plan) is a fully funded contributory plan that ensures pension benefits based on the number of years of service and an average of the best five years of earnings. These benefits are indexed annually based on a rate which is the greater of the inflation rate, up to a maximum of 2%, and the inflation rate less 3%.

Hydro-Québec also offers other post-retirement benefits as well as post-employment benefits. Post-retirement benefits are provided by group life, medical and hospitalization insurance plans, which are contributory plans with contributions adjusted annually. Post-employment benefits are under non-contributory salary insurance plans, which pay short- and long-term disability benefits. Most of these plans are not funded, with the exception of the long-term disability salary insurance plan, which is fully funded, and the supplementary group life insurance plan, which is partially funded.

All Hydro-Québec's plans are defined benefit plans. The accrued benefit obligations of these plans, valued by independent actuaries, and their assets, at fair value, are valued as at December 31 of each year. The most recent actuarial valuation of the Pension Plan for funding purposes was as at December 31, 2012, at which date the plan was funded at 104.6%. The next valuation must be as at December 31, 2013.

CHANGES IN ACCRUED BENEFIT OBLIGATIONS AND IN PLAN ASSETS AT FAIR VALUE

	Pension Plan		Other plans	
	2013	2012	**2013**	2012
Accrued benefit obligations				
Balance, beginning of year	**19,173**	16,903	**1,197**	1,061
Current service cost	**379**	323	**48**	43
Employee contributions	**131**	134	**–**	–
Benefit payments and refunds	**(819)**	(756)	**(59)**	(55)
Interest on obligations	**829**	839	**52**	52
Actuarial (gain) loss	**(1,091)**	1,730	**(64)**	96
Plan amendments	**26**	–	**(49)**	–
Balance, end of year	**18,628**	19,173	**1,125**	1,197
Plan assets at fair value				
Balance, beginning of year	**16,414**	14,897	**68**	68
Actual return on plan assets	**2,197**	1,489	**2**	2
Employee contributions	**131**	134	**–**	–
Contributions by Hydro-Québec	**809**	650	**14**	10
Benefit payments and refunds	**(819)**	(756)	**(12)**	(12)
Balance, end of year	**18,732**	16,414	**72**	68
Surplus (deficit), end of year	**104**	(2,759)	**(1,053)**	(1,129)
Unamortized past service cost (credit)	**125**	137	**(49)**	–
Unamortized net actuarial loss	**3,657**	6,155	**193**	269
Unamortized transitional (asset) obligation	**–**	(153)	**–**	13
Accrued benefit assets (liabilities)	**3,886**	3,380	**(909)**	(847)

ADDITIONAL DISCLOSURES WITH RESPECT TO PLAN ASSETS

As at December 31, plan assets, at fair value, consisted of:

	Pension Plan		Other plans	
%	**2013**	2012	**2013**	2012
Bonds	**41**	49	**93**	96
Equities	**44**	39	**–**	–
Real estate investments	**12**	11	**–**	–
Other	**3**	1	**7**	4
	100	100	**100**	100

NOTE 21 EMPLOYEE FUTURE BENEFITS (CONTINUED)

Assets of the plans include the following securities issued by Hydro-Québec and by the Québec government and some of its agencies:

	Pension Plan		Other plans	
	2013	2012	**2013**	2012
Bonds	**1,136**	1,189	**68**	65

Administrative and management expenses billed to the Pension Plan by Hydro-Québec amounted to $14 million in 2013 and in 2012.

CASH PAYMENTS

Cash payments made by Hydro-Québec for employee benefit plans consist of contributions made to the funded plans and the benefits paid to employees and pensioners under unfunded plans. The cash payment details are as follows:

	2013	2012
Contributions by Hydro-Québec		
Pension Plan	**809**	650
Other funded plans	**14**	10
Benefit payments		
Unfunded plans	**46**	44
	869	704

In accordance with the actuarial valuation for funding purposes, Hydro-Québec made current contributions of $261 million in 2013 ($256 million in 2012), including additional contributions of $73 million ($83 million in 2012), to cover the current service cost, and a special contribution of $548 million ($394 million in 2012) to cover part of the unfunded actuarial liability. The special contributions paid in 2013 and 2012 take into account certain temporary relief measures introduced by the *Act to amend the Supplemental Pension Plans Act and other legislative provisions in order to reduce the effects of the financial crisis on plans covered by the Act* and, in particular, the extension of the period to cover the unfunded actuarial liability.

ELEMENTS OF ACCRUED BENEFIT COST RECOGNIZED FOR THE YEAR

	Pension Plan		Other plans	
	2013	2012	**2013**	2012
Current service cost[a]	**379**	323	**48**	43
Interest on obligations	**829**	839	**52**	52
Actual return on plan assets	**(2,197)**	(1,489)	**(2)**	(7)
Actuarial (gain) loss	**(1,091)**	1,730	**(64)**	96
Plan amendments	**26**	–	**(49)**	–
(Credit) cost before adjustments required to recognize the long-term nature of employee future benefits	**(2,054)**	1,403	**(15)**	189
Difference between actual and expected return on assets	**1,071**	406	**–**	–
Difference between actuarial (gain) loss on accrued benefit obligations and actuarial loss recognized	**1,427**	(1,548)	**76**	(90)
Difference between plan amendments and amortization of past service cost	**12**	48	**49**	–
Amortization of transitional (asset) obligation	**(153)**	(152)	**13**	12
	2,357	(1,246)	**138**	(78)
Cost recognized for the year	**303**	157	**123**	111

a) For the long-term disability salary insurance plan, the current service cost corresponds to the cost of new disability cases for the year.

SIGNIFICANT ACTUARIAL ASSUMPTIONS

The following actuarial assumptions, used to determine the accrued benefit obligations and cost recognized for the plans, result from a weighted average:

	Pension Plan		Other plans	
%	**2013**	2012	**2013**	2012
Accrued benefit obligations				
Rate at end of year				
Discount rate	**4.77**	4.36	**4.77**	4.36
Salary escalation rate[a]	**2.51**	2.25	**–**	–
Accrued benefit cost recognized				
Rate at end of prior year				
Discount rate	**4.36**	5.01	**4.36**	5.01
Expected long-term rate of return on plan assets	**6.75**	6.75	**3.91**	4.03
Salary escalation rate[a]	**2.25**	2.61	**–**	–

a) This rate takes salary increases into account as well as promotion opportunities while in service.

As at December 31, 2013, health care costs were based on an annual growth rate of 5.60% for 2014. According to the assumption used, this rate will then decrease to a final rate of 4.90% in 2030. A change of 1% in this annual growth rate would have had the following impact for 2013:

	1% increase	1% decrease
Impact on current service cost and interest cost on accrued benefit obligations for the year	10	(7)
Impact on accrued benefit obligations at end of year	72	(48)

NOTE 22 COMMITMENTS AND CONTINGENCIES

ELECTRICITY PURCHASE TRANSACTIONS

On May 12, 1969, Hydro-Québec signed a contract with Churchill Falls (Labrador) Corporation Limited (CF(L)Co) whereby Hydro-Québec undertook to purchase substantially all the output from Churchill Falls generating station, which has a rated capacity of 5,428 MW. Expiring in 2016, this contract will be automatically renewed for a further 25 years under agreed-upon terms and conditions. On June 18, 1999, Hydro-Québec and CF(L)Co entered into a contract to guarantee the availability of 682 MW of additional power until 2041 for the November 1 to March 31 winter period.

As at December 31, 2013, Hydro-Québec was committed under 129 contracts, with terms extending through 2052, to purchase electricity from other power producers. These contracts represent an installed capacity of about 5,494 MW, and over half of them include renewal clauses. Hydro-Québec has also undertaken to purchase power transmission rights.

Hydro-Québec expects to make the following payments on all its electricity purchase contracts over the coming years:

2014	1,421
2015	1,606
2016	1,738
2017	1,754
2018	1,778
2019 and thereafter	30,522

GUARANTEES

In accordance with the terms and conditions of certain debt securities issued outside Canada, Hydro-Québec has undertaken to increase the amount of interest paid to non-residents in the event of changes to Canadian tax legislation governing the taxation of non-residents' income. Hydro-Québec cannot estimate the maximum amount it might have to pay under such circumstances. Should an amount become payable, Hydro-Québec has the option of redeeming most of the securities in question. As at December 31, 2013, the amortized cost of the long-term debts concerned was $5,604 million.

INVESTMENTS

Hydro-Québec anticipates investing approximately $4 billion in property, plant and equipment and intangible assets in 2014.

In addition, Hydro-Québec has entered into various agreements with the local communities concerned by certain capital projects. The amounts related to some of these agreements are not recorded under Long-term debt because, as at December 31, 2013, the agreements concerned did not meet all the applicable criteria for the recognition of a liability. These agreements provide for annual payments as of 2021, for a maximum term of 51 years and a total amount of $618 million.

NOTE 22 COMMITMENTS AND CONTINGENCIES (CONTINUED)

LITIGATION

In the normal course of its development and operating activities, Hydro-Québec is sometimes party to claims and legal proceedings. Management is of the opinion that an adequate provision has been made for these legal actions. Consequently, it does not foresee any adverse effect of such contingent liabilities on Hydro-Québec's consolidated operating result or financial position.

Among other ongoing actions, some local communities have instituted proceedings against the governments of Canada and Québec, as well as against Hydro-Québec, based on demands concerning their ancestral rights. Thus, the Innus of Uashat mak Mani-Utenam are claiming $1.5 billion. In June 2009, they served notice that they had filed for an injunction to suspend work at the Romaine complex jobsite, and in May 2010, an application was added for an interlocutory injunction to suspend work on the related tie lines. As well, in November 2006, the Innus of Pessamit reactivated a case instituted in 1998 aimed at obtaining, among other things, the recognition of ancestral rights related to Québec lands on which certain hydroelectric generating facilities belonging to the Manic-Outardes complex are located. The Innus of Pessamit are claiming $500 million. The judicial proceedings are progressing, and Hydro-Québec is challenging the legitimacy of all these claims.

NOTE 23 SEGMENTED INFORMATION

Hydro-Québec carries on its activities in the four reportable business segments defined below. The non-reportable business segments and other activities are grouped together under Corporate and Other Activities for reporting purposes.

Generation: Hydro-Québec Production operates and develops Hydro-Québec's generating facilities. The division provides Hydro-Québec Distribution with a base volume of up to 165 TWh of heritage pool electricity annually. In addition, it can participate in Hydro-Québec Distribution's calls for tenders in a context of free market competition, and also sells electricity on external markets as well as engaging in arbitraging transactions.

Transmission: Hydro-Québec TransÉnergie operates and develops Hydro-Québec's power transmission system. It markets system capacity and manages power flows throughout Québec.

Distribution: Hydro-Québec Distribution operates and develops Hydro-Québec's distribution system and is responsible for sales and services to Québec customers. It also promotes energy efficiency and ensures the security of the supply of electricity to the Québec market.

Construction: Hydro-Québec Équipement et services partagés and Société d'énergie de la Baie James (SEBJ) design, build and refurbish generating and transmission facilities. Hydro-Québec Équipement et services partagés is responsible for projects throughout Québec, except in the territory governed by the *James Bay and Northern Québec Agreement* (JBNQA). SEBJ builds generating facilities in the territory governed by the JBNQA (north of the 49th parallel) and may also carry out certain projects elsewhere in Québec or outside the province.

Corporate and Other Activities: The corporate units support the divisions in the achievement of their business objectives. They include the Groupe – Technologie, Groupe – Affaires corporatives et secrétariat général, Vice-présidence – Comptabilité et contrôle, Vice-présidence – Financement, trésorerie et caisse de retraite and Vice-présidence – Ressources humaines, as well as the Direction principale – Centre de services partagés, which reports to Hydro-Québec Équipement et services partagés. The Centre de services partagés brings together internal company-wide shared services, including procurement of goods and services, real estate management, document management and materials management, as well as management of food, accommodation and air and ground transportation services.

The amounts presented for each segment are based on the financial information used to prepare the consolidated financial statements. The accounting policies used to calculate these amounts are as described in Note 1, Significant Accounting Policies, and Note 2, Effects of Rate Regulation on the Consolidated Financial Statements.

Intersegment transactions related to electricity sales are recorded based on the supply and transmission rates provided for by the *Act respecting the Régie de l'énergie*. The Act sets a supply rate for an annual base volume of up to 165 TWh of heritage pool electricity for the Québec market.

Other intersegment products and services are measured at full cost, which includes all costs directly associated with product or service delivery.

Most of Hydro-Québec's revenue is from Québec, and substantially all its property, plant and equipment are related to its Québec operations. In 2013, revenue from outside Québec amounted to $1,658 million, with $1,365 million originating from the United States ($1,458 million and $1,038 million, respectively, in 2012).

The following tables contain information related to operations, assets and investing activities by segment:

							2013
	Generation	Transmission	Distribution	Construction	Corporate and Other Activities	Intersegment eliminations and adjustments	Total
Revenue							
External customers	1,674	45	11,163	–	(1)	–	**12,881**
Intersegment customers	4,924	3,005	84	2,574	1,503	(12,090)	**–**
Depreciation and amortization	765	906	719	3	99	–	**2,492**
Financial expenses	1,170	787	453	–	27	(4)	**2,433**
Result from continuing operations	1,926	513	410	–	89	–	**2,938**
Result from discontinued operations	4	–	–	–	–	–	**4**
Net result	1,930	513	410	–	89	–	**2,942**
Total assets	32,087	20,267	13,958	459	6,519	(180)	**73,110**
Investing activities							
Increase in property, plant and equipment and intangible assets							
Affecting cash	1,381	1,915	882	5	152	–	**4,335**
Not affecting cash	20	82	8	–	–	–	**110**

							2012
	Generation	Transmission	Distribution	Construction	Corporate and Other Activities	Intersegment eliminations and adjustments	Total
Revenue							
External customers	1,316	110	10,662	–	40	8[a]	12,136
Intersegment customers	4,725	2,995	77	2,295	1,420	(11,512)	–
Depreciation and amortization	731	917	679	4	84	–	2,415
Financial expenses	1,177	796	444	–	29	(5)	2,441
Result from continuing operations	1,541	581	503	–	111	–	2,736
Result from discontinued operations	(1,867)	(9)	–	–	–	–	(1,876)
Net result	(326)	572	503	–	111	–	860
Total assets	31,066	19,144	13,434	421	6,648	(205)	70,508
Investing activities							
Increase in property, plant and equipment and intangible assets							
Affecting cash	1,511	1,423	874	4	120	–	3,932
Not affecting cash	587	20	9	–	–	–	616

a) Resales of excess supply by Hydro-Québec Distribution on outside markets are presented as offsets of electricity purchases rather than in Revenue.

NOTE 24 COMPARATIVE INFORMATION

Some of the prior year's data have been reclassified to conform to the presentation adopted in the current year.

CONSOLIDATED FINANCIAL INFORMATION

$M	2013	2012	2011	2010	2009
OPERATIONS					
Revenue	**12,881**	12,136	12,250	12,269	11,997
Expenditure					
Operations	**2,450**	2,364	2,415	2,424	2,376
Electricity and fuel purchases	**1,568**	1,183	1,154	1,282	1,137
Depreciation and amortization	**2,492**	2,415	2,603	2,559	2,280
Taxes	**1,000**	997	864	906	924
	7,510	6,959	7,036	7,171	6,717
Operating result	**5,371**	5,177	5,214	5,098	5,280
Financial expenses	**2,433**	2,441	2,528	2,555	2,419
Result from continuing operations	**2,938**	2,736	2,686	2,543	2,861
Result from discontinued operations[a]	**4**	(1,876)	(75)	(28)	10
Net result	**2,942**	860	2,611	2,515	2,871
DIVIDEND	**2,207**	645	1,958	1,886	2,168
BALANCE SHEET SUMMARY					
Total assets	**73,110**	70,508	69,594	65,794	64,918
Long-term debt, including current portion and perpetual debt	**44,477**	43,524	42,050	38,660	37,943
Equity	**19,394**	18,982	18,834	18,566	18,419
INVESTMENTS FOR CONTINUING OPERATIONS AFFECTING CASH					
Property, plant and equipment and intangible assets[b]	**4,335**	3,932	3,814	4,220	4,307
FINANCIAL RATIOS					
Interest coverage[c]	**2.09**	2.02	1.97	1.93	2.08
Return on equity from continuing operations (%)[d]	**14.6**	14.6	15.5	15.3	17.9
Profit margin from continuing operations (%)[e]	**22.8**	22.5	21.9	20.7	23.8
Capitalization (%)[f]	**30.5**	30.6	31.4	32.1	32.6
Self-financing (%)[g]	**68.3**	55.4	48.7	47.0	41.3

a) The discontinued operations are related to the 2012 decision to abandon the project to refurbish Gentilly-2 nuclear generating station and to terminate nuclear power operations.

b) Including the Energy Efficiency Plan.

c) Sum of operating result and net investment income divided by interest on debt securities.

d) Result from continuing operations divided by average equity less average result from discontinued operations for the current year and prior years and average accumulated other comprehensive income. For the period from 2009 to 2013, average equity less average result from discontinued operations for the current year and prior years and average accumulated other comprehensive income amounted to $15,952 million, $16,627 million, $17,319 million, $18,729 million and $20,141 million, respectively.

e) Result from continuing operations divided by revenue.

f) Equity divided by the sum of equity, long-term debt, current portion of long-term debt, perpetual debt, borrowings and derivative instrument liabilities, less derivative instrument assets and sinking fund.

g) Cash flows from operating activities less dividend paid, divided by the sum of cash flows from investing activities, excluding net disposal or acquisition of short-term investments, and repayment of long-term debt.

Note: Throughout the Five-Year Review and the Consolidated Results by Quarter, certain comparative figures have been reclassified to conform to the presentation adopted in the current year.

OPERATING STATISTICS

	2013	2012	2011	2010	2009
GWh					
Electricity sales[a]					
In Québec, by segment					
Residential	**65,983**	61,956	62,402	59,348	62,291
Commercial, institutional and small industrial	**44,620**	43,775	43,683	43,009	43,324
Large industrial	**56,855**	56,875	58,210	59,828	54,675
Other	**5,818**	5,795	5,671	7,300	5,026
	173,276	168,401	169,966	169,485	165,316
Outside Québec					
Canada/U.S. (long-term)	**2,519**	2,683	2,617	2,677	2,694
Canada/U.S. (short-term)	**29,689**	25,406	21,063	17,477	17,342
	32,208	28,089	23,680	20,154	19,952
Total electricity sales	**205,484**	196,490	193,646	189,639	185,268
$M					
Revenue from electricity sales[a]					
In Québec, by segment					
Residential	**4,825**	4,452	4,508	4,287	4,484
Commercial, institutional and small industrial	**3,504**	3,370	3,377	3,335	3,355
Large industrial	**2,439**	2,317	2,533	2,534	2,436
Other	**317**	303	302	350	274
	11,085	10,442	10,720	10,506	10,549
Outside Québec					
Canada/U.S. (long-term)	**229**	211	253	247	255
Canada/U.S. (short-term)	**1,296**	983	999	1,057	1,032
	1,525	1,194	1,252	1,304	1,287
Total revenue from electricity sales	**12,610**	11,636	11,972	11,810	11,836
As at December 31					
Number of customer accounts					
In Québec, by segment					
Residential	**3,821,012**	3,777,196	3,731,047	3,684,966	3,635,794
Commercial, institutional and small industrial	**316,585**	314,895	313,468	311,149	308,521
Large industrial	**186**	188	189	192	194
Other	**4,207**	3,988	4,004	3,861	3,646
Total customer accounts	**4,141,990**	4,096,267	4,048,708	4,000,168	3,948,155

a) Data related to continuing operations.

OPERATING STATISTICS (CONTINUED)

	2013	2012	2011	2010	2009
MW					
Installed capacity					
Hydroelectric	**35,364**	35,125	35,285	34,490	34,499
Nuclear[a]	**–**	–	675	675	675
Thermal	**704**	704	1,011	1,506	1,637
Wind farm	**–**	–	–	–	2
Total installed capacity	**36,068**[b]	35,829	36,971	36,671	36,813
GWh					
Total energy requirements[c]	**226,576**	221,004	214,764	209,108	208,524
MW					
Peak power demand in Québec[d]	**39,031**	38,797	35,481	37,717	34,659
km					
Lines (overhead and underground)					
Transmission	**33,885**[e]	33,911	33,902	33,725	33,516
Distribution[f]	**114,843**	114,649	113,525	112,089	111,205
	148,728	148,560	147,427	145,814	144,721

a) Gentilly-2 generating station ceased to operate on December 28, 2012.

b) In addition to the generating capacity of its own facilities, Hydro-Québec has access to almost all the output from Churchill Falls generating station (5,428 MW) under a contract with Churchill Falls (Labrador) Corporation Limited that will remain in effect until 2041. It also purchases all the output from 23 wind farms (2,399 MW) and 4 small hydropower plants (48 MW) and almost all the output from 11 biomass cogeneration facilities (205 MW) operated by independent power producers. Moreover, 1,146 MW are available under long-term contracts with other suppliers.

c) Total energy requirements consist of kilowatthours delivered within Québec and to neighboring systems.

d) The 2013 figure was valid on February 21, 2014. The values indicated correspond to the needs for the winter beginning in December, including interruptible power. The peak for a given period is based on measurements at fixed intervals. The 2013–2014 winter peak was 39,031 MW and occurred on January 22, 2014, at 8:00 a.m., after the system load momentarily reached 39,240 MW at 7:26 a.m.

e) 33,613 km of lines operated by Hydro-Québec TransÉnergie and 272 km by Hydro-Québec Distribution.

f) These figures include off-grid systems but exclude private systems, lines under construction and 44-kV lines (transmission).

OTHER INFORMATION

	2013	2012	2011	2010	2009
%					
Average rate increase (decrease) from January 1 to December 31	**1.7**	(0.4)	(0.2)	0.6	1.6
As at December 31					
Salaried employees[a]	**19,692**	21,032	21,977	22,590	22,611
Total number of employees[a]					
Permanent	**17,861**	18,926	19,415	19,521	19,536
Temporary	**2,382**	2,670	3,086	3,571	3,554
	20,243	21,596	22,501	23,092	23,090
Women (%)	**30.0**	30.6	31.1	30.9	30.6

a) Excluding employees of subsidiaries and joint ventures.

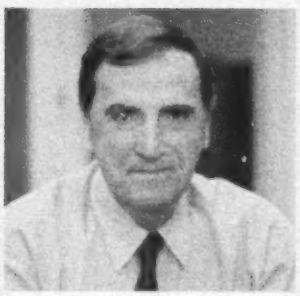
CONSOLIDATED RESULTS BY QUARTER

					2013
$M	1st quarter	2nd quarter	3rd quarter	4th quarter	12-month period
Revenue	3,913	2,789	2,659	3,520	**12,881**
Expenditure					
Operations	626	598	567	659	**2,450**
Electricity and fuel purchases	449	328	320	471	**1,568**
Depreciation and amortization	579	601	603	709	**2,492**
Taxes	282	225	230	263	**1,000**
	1,936	1,752	1,720	2,102	**7,510**
Operating result	1,977	1,037	939	1,418	**5,371**
Financial expenses	608	602	620	603	**2,433**
Result from continuing operations	1,369	435	319	815	**2,938**
Result from discontinued operations	(9)	29	(7)	(9)	**4**
Net result	1,360	464	312	806	**2,942**

					2012
$M	1st quarter	2nd quarter	3rd quarter	4th quarter	12-month period
Revenue	3,723	2,635	2,585	3,193	12,136
Expenditure					
Operations	586	582	534	662	2,364
Electricity and fuel purchases	319	258	261	345	1,183
Depreciation and amortization	596	568	576	675	2,415
Taxes	269	227	217	284	997
	1,770	1,635	1,588	1,966	6,959
Operating result	1,953	1,000	997	1,227	5,177
Financial expenses	610	598	621	612	2,441
Result from continuing operations	1,343	402	376	615	2,736
Result from discontinued operations	(7)	(16)	(1,833)	(20)	(1,876)
Net result	1,336	386	(1,457)	595	860

Thierry Vandal
President and Chief
Executive Officer

Marie-José Nadeau
Executive Vice President –
Corporate Affairs and
Secretary General



Élie Saheb
Executive Vice President –
Technology

Jean-Hugues Lafleur
Vice President –
Financing, Treasury and
Pension Fund

Lise Croteau
Vice President –
Accounting and Control

Bruno Gingras
Vice President –
Human Resources

BOARD OF DIRECTORS

Pierre Karl Péladeau
Chairman of the Board, Hydro-Québec
Appointment: May 15, 2013
Term: May 15, 2018
Status: Independent director

With a degree in Philosophy from Université du Québec à Montréal and in Law from Université de Montréal, Pierre Karl Péladeau is Chairman of the Board of Quebecor Media and Groupe TVA, as well as Vice Chairman of the Board of Quebecor. He was President of Groupe Quebecor from 1991 to 1994, President and Chief Executive Officer of Quebecor Printing Europe from 1994 to 1998, and then President and CEO of Quebecor from 1999 to 2013. During this time, he spearheaded the acquisition of Sun Media Corporation and Groupe Vidéotron. Mr. Péladeau also sits on the boards of various not-for-profit organizations.

Thierry Vandal
President and Chief Executive Officer, Hydro-Québec
Appointment: April 6, 2005
Term: October 3, 2017
Status: Non-independent director

With a Bachelor of Engineering from the École Polytechnique de Montréal and an MBA from HEC Montréal, Thierry Vandal[1] has worked in the energy sector for more than 30 years. In particular, he participated in the operations, marketing and strategic planning aspects of the petroleum, petrochemical and natural gas industries before joining Hydro-Québec in 1996. Mr. Vandal is Chairman of the Board of BioFuelNet Canada and also sits on the boards of HEC Montréal and McGill University, among other organizations.

Anik Brochu
Director, Human Resources, Groupe T.A.P.
Appointment: September 13, 2006
Term: November 30, 2015
Status: Independent director

A graduate of the University of Ottawa in Law and member of the Barreau du Québec, Anik Brochu was General Manager of the Chambre de commerce de Val-d'Or from 1997 to 2008 and a lawyer with Cain Lamarre Casgrain Wells from 2008 to 2010. She continues to provide consulting services to that firm. In 2011, she joined Groupe T.A.P. as Director of Human Resources. Ms. Brochu is Vice Chair of the board of the Université du Québec en Abitibi-Témiscamingue and sits on various committees that are active in the field of socioeconomic development.

Carl Cassista
President, Axion Technologies
Appointment: September 26, 2007
Term: November 30, 2014
Status: Independent director

A graduate of Université Laval and member of the Ordre des ingénieurs du Québec, Carl Cassista has worked in electrical engineering with Axion Technologies Ltd. since 1982. He has served as president of Axion since 1994 and piloted the company's expansion in North America and Europe. Mr. Cassista has also sat on the boards of numerous economic development organizations.

Michelle Cormier
Executive Vice President and Chief Financial Officer, TNG Corporation
Appointment: November 4, 2009
Term: November 4, 2013[1]
Status: Independent director

With a Bachelor's degree in Administration from Bishop's University and a Graduate Diploma in Public Accountancy from McGill University, Michelle Cormier is a member of the Ordre des comptables professionnels agréés du Québec and has certification from the Collège des administrateurs de sociétés. She held executive positions with Alcan Aluminium and Repap Enterprises before her appointment as Vice-President and Chief Financial Officer of TNG Corporation in 2001. Ms. Cormier chairs the boards of Pro-Fab, the Orchestre Métropolitain and Industries Moreau.

Patrick Déry
Superintendent of Solvency, Autorité des marchés financiers
Appointment: October 10, 2012
Term: November 3, 2013[1]
Status: Non-independent director

With a Bachelor's degree and a Master's degree in Economics from Université Laval, Patrick Déry joined the Québec civil service in 1999. He held various positions in the Ministère des Finances, including Assistant Deputy Minister responsible for federal-provincial and financial policies. He joined the Autorité des marchés financiers in 2011, in the roles of Superintendent of Customer Assistance and Distribution Regulation. Since 2013, he has held the position of Superintendent of Solvency.

Suzanne Gouin
President and Chief Executive Officer, TVS Québec Canada
Appointment: September 26, 2007
Term: November 30, 2015
Status: Independent director

Suzanne Gouin has a Bachelor's degree in Political Science from Concordia University, where she also took graduate courses in media studies. She completed an MBA at the University of Western Ontario and has certification from the Institute of Corporate Directors. She has held several management positions in media companies and joined TVS Québec Canada in 2002 as President and Chief Executive Officer. Ms. Gouin sits on the boards of St. Mary's Hospital Center and various not-for-profit organizations.

Isabelle Hudon
President, Sun Life Financial, Québec
Appointment: November 30, 2011
Term: November 30, 2015
Status: Independent director

Isabelle Hudon began her career in communications before her appointment as President and Chief Executive Officer of the Board of Trade of Metropolitan Montreal, a position she held from 2004 to 2008. From 2008 to 2010, she was President of Marketel/McCann-Erickson. In 2010, she joined Sun Life Financial as President of the company's Québec operations. She sits on the boards of Turquoise Hill Resources, the Canada Council for the Arts and Holt Renfrew.

1. When their term expires, directors remain in office until replaced or reappointed.

Louis Lagassé
Chairman of the Board and Chief Executive Officer, GPV Group

Appointment: September 10, 2003
Term: February 11, 2012[1]
Status: Independent director

With a law degree from the Université de Montréal, an MBA from the University of Western Ontario and a Ph.D. in Law from Bishop's University, Louis Lagassé is a member of the Chambre des notaires du Québec. He also holds an honorary doctorate from the Université de Sherbrooke and is a member of the Order of Canada. Mr. Lagassé heads an industrial group that is active on the Canadian and European markets, and he serves on the boards of several telecommunications companies as well as various not-for-profit organizations. In particular, he served on the Board of Trustees of the National Arts Centre.

Jacques Leblanc
President, Gestion Jacques Leblanc

Appointment: April 7, 2004
Term: November 30, 2014
Status: Independent director

A graduate of Université Laval in Administration, Jacques Leblanc is a chartered professional accountant and a Fellow of the Ordre des comptables professionnels agréés du Québec. He also has certification from the Collège des administrateurs de sociétés. Mr. Leblanc was a partner in the firm Leblanc Bourque Arsenault for 25 years.

Michel Plessis-Bélair
Vice-Chairman, Power Corporation of Canada

Appointment: April 7, 2004
Term: September 26, 2011[1]
Status: Independent director

Michel Plessis-Bélair holds a Bachelor of Arts from the Université de Montréal, a business and accounting degree from HEC Montréal and an MBA from Columbia University in New York. In 1986, he joined Power Corporation of Canada. From 1986 to 2008, he successively served as Senior Vice-President, Finance and Administration, as Executive Vice-President and Chief Financial Officer and as Vice-Chairman and Chief Financial Officer. Currently, he is Vice-Chairman of Power Corporation and Power Financial Corporation and a director of several of their subsidiaries. He also sits on the boards of various not-for-profit organizations.

Marie-France Poulin
Executive Vice President, Canada Group

Appointment: April 7, 2004
Term: November 30, 2015
Status: Independent director

Marie-France Poulin holds a Bachelor of Business Administration with an option in Marketing from Université Laval, as well as certification from the Collège des administrateurs de sociétés. Prior to joining Canada Group in 2004, she held several executive positions, including that of Vice President, Sales and Marketing, of MAAX. Ms. Poulin sits on the boards of the Laurentian Bank and various not-for-profit organizations.

Martine Rioux
Corporate Secretary, Université du Québec en Abitibi-Témiscamingue

Appointment: November 30, 2011
Term: November 30, 2014
Status: Independent director

Martine Rioux holds a Bachelor of Arts in Psychology from the Université de Sherbrooke and a Certificate in Administration from the Université du Québec en Abitibi-Témiscamingue. She worked as a development officer before becoming General Manager of the Conférence régionale des élus de l'Abitibi-Témiscamingue. In 2011, she was appointed Corporate Secretary of the Université du Québec en Abitibi-Témiscamingue. Ms. Rioux sits on the monitoring committees for three mining projects. She also serves on the boards of several social and economic development organizations in Abitibi-Témiscamingue.

Marie-Anne Tawil
President and Chief Executive Officer, Iron Hill Investments

Appointment: December 7, 2005
Term: November 30, 2015
Status: Independent director

With a Licentiate in Civil Law and a Bachelor of Common Law from the University of Ottawa and an MBA from Concordia University, Marie-Anne Tawil is a member of the Barreau du Québec and has earned certification from the Institute of Corporate Directors. She has practised law with two major law firms in Montréal and was Legal Counsel and Secretary of Quebecor. She has been President and Chief Executive Officer of Iron Hill Investments since 2000. Ms. Tawil is a member of the Governance Committee of ONE DROP.

Christyne Tremblay
Deputy Minister of Natural Resources, Gouvernement du Québec

Appointment: June 19, 2013
Term: February 19, 2017
Status: Non-independent director

With a Bachelor's degree in Political Science and Economics from the University of Ottawa and a Graduate Diploma in International Administration from the École nationale d'administration publique, Christyne Tremblay joined the Québec civil service in 1991 and has held a number of management positions in various departments. After serving as Secretary to the Finance Minister, she became Deputy Minister of Economic Development, Innovation and Export Trade and Deputy Minister of Higher Education, Research, Science and Technology before being named Deputy Minister of Natural Resources in June 2013.

1. : When their term expires, directors remain in office until replaced or reappointed.

ACTIVITY REPORT OF THE BOARD OF DIRECTORS AND BOARD COMMITTEES

Hydro-Québec is proud to support visual arts in Québec and displays some of its collection in high-traffic areas so it can be enjoyed by as many people as possible.

Above
Avenue du Musée, ink on paper by Michael Merrill, 2010. © Michael Merrill

Next page
Untitled, acrylic on paper by Ulysse Comtois, 1982. © Louise Masson

BOARD OF DIRECTORS

Hydro-Québec's Board of Directors is made up of the Chairman of the Board, the President and Chief Executive Officer, and directors whose diverse professional backgrounds are a definite asset for the seven Board committees: Executive, Governance and Ethics, Audit, Human Resources, Environment and Public Affairs, Finance, and Pension Plan Financial Management. The Board is chaired by Pierre Karl Péladeau.

Mandate: The Board administers the company's business efficiently, in accordance with the *Hydro-Québec Act*, the *Companies Act* and the applicable regulations. Its principal functions include reviewing and approving the Strategic Plan and the annual Business Plan, setting the company's annual performance targets, reviewing financial results on a monthly basis, and performing the cyclical review of integrated business risk management. The Board also approves the appointment of executives other than the President and Chief Executive Officer, as well as the policies governing compensation and working conditions for Hydro-Québec's employees and executives. In addition, it approves the company's major capital projects in generation, transmission and distribution, as well as important matters submitted to the Régie de l'énergie.

Activities: The Board met 12 times in 2013, while its committees held 25 meetings in all. The Board approved many capital projects in generation, transmission and distribution, including projects to connect the 12 wind farms selected under the Distributor's 2009 tender call and to reinforce the main transmission grid with a view to integrating the additional power from these farms. Other projects involve the replacement of two static var compensators at Albanel substation and the construction of the new Fleury and De Lorimier substations and 315-kV lines to supply these facilities. The Board authorized filing with the Régie de l'énergie of the Distributor's Electricity Supply Plan 2014–2023, as well as a request for a review of the rate of return for the company's regulated activities and approval of an earnings sharing mechanism for the treatment of related variances. It also approved the five-year review of the company's policies. In addition, the Board monitored progress made in the rollout of next-generation meters and the replacement of current transformers on the 735-kV transmission system. The Directors also benefited from presentations on transportation electrification and status reports on the Romaine jobsites.

In the course of its recurring deliberations, the Board examined the company's objectives and approved its quarterly and annual financial results, as well as the financial statements of the Hydro-Québec pension plan. It reviewed the progress of the company's main capital projects and examined the consolidated residual risk portfolio. It also approved the company's Business Plan and annual internal audit plan, as well as the independent auditors' plan and fees in connection with the audit of the financial statements of the company and of its pension plan.

EXECUTIVE (A)

Mandate: The Executive Committee is vested with all of the powers of the Board of Directors, except those powers that are expressly reserved for the Board by law and under the company's bylaws. It is chaired by Pierre Karl Péladeau.

Activities: The Executive Committee did not hold any meetings in 2013.

GOVERNANCE AND ETHICS (B)

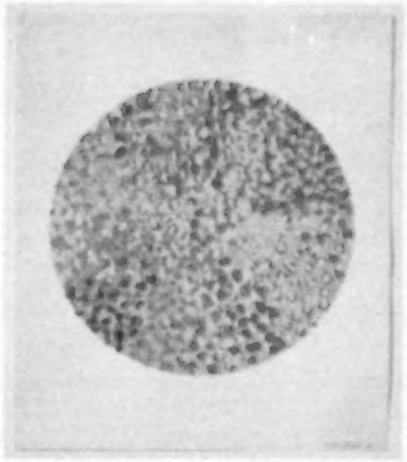
Mandate: The role of the Governance and Ethics Committee is to develop the company's rules of governance and the codes of ethics applicable to directors, senior executives appointed by the company and employees of Hydro-Québec and its wholly owned subsidiaries; the expertise and experience profiles of the Board members; the criteria for assessing the performance of directors and the Board's functioning; the induction and training program for directors; and the measures for evaluating the company's efficiency and performance. This committee also makes recommendations to the Board regarding the company's Strategic Plan and Annual Report and the composition and mandate of the Board committees. The Governance and Ethics Committee is chaired by Pierre Karl Péladeau.

Activities: In 2013, the Governance and Ethics Committee met twice. While carefully ensuring application of the governance measures in the *Hydro-Québec Act*, the Committee reviewed the mandates of the Board committees and recommended the appointment of a member to the Audit Committee. In addition, it examined Hydro-Québec's *Annual Report 2012*, the annual report on induction and ongoing training programs for board members, and the annual reviews of several company policies.

Summary of the assessment of Board performance: In accordance with the *Hydro-Québec Act*, in 2013 the Governance and Ethics Committee assessed the performance of the Board of Directors. The directors completed a questionnaire based on assessment criteria that had been approved by the Board.

AUDIT (C)

Mandate: The Audit Committee's role is to make recommendations to the Board of Directors on the approval of the financial statements of Hydro-Québec and its pension plan. It ensures that the financial statements accurately reflect the financial positions and changes therein, and that accounting practices and internal controls are adequate and effective. It issues an opinion prior to the Board's approval of the annual audit plan, audit mission letters and independent auditors' fees. The Committee oversees the planning of internal audit activities, ensures that the company has a plan to optimize the use of its resources and monitors this plan. Furthermore, it examines the integrated business risk management process. It is responsible for reviewing the relevance of its mandate on an annual basis. It can also act as the audit committee of any of the company's wholly owned subsidiaries. The Audit Committee is composed solely of independent directors who have the necessary expertise for the performance of its mandate. It is chaired by Jacques Leblanc.



Activities: The Audit Committee held six meetings in 2013. As part of its recurring deliberations, it examined the quarterly and annual financial statements of Hydro-Québec and its pension plan and the annual financial statements of Société d'énergie de la Baie James. It also reviewed the company's annual control plan and the report on the previous year's plan. It monitored the independence of the independent auditors and met with them in order to plan the audit and receive its results. The Committee recommended that the Board approve the financial year's audit plans for the company and its pension plan. It examined the internal audit results and reports regarding control and optimization of the company's operations and resources as well as management of the related risks. It also monitored the management of Hydro-Québec Distribution's accounts receivable and reviewed the summary of the commercial operations of the company and its first-tier interests. As well, it examined the company's 2014 internal audit plan and recommended its approval by the Board.

HUMAN RESOURCES (D)

Mandate: The Human Resources Committee is responsible for establishing human resources policies as well as standards and rate scales applicable to the compensation of senior executives and employees of the company and its wholly owned subsidiaries. It is also responsible for developing the expertise and experience profile to be used in selecting the President and Chief Executive Officer and for proposing a candidate for that position to the Board of Directors, which will then make a recommendation to the Québec government. In addition, it develops and suggests criteria for assessing the performance of the President and Chief Executive Officer and makes recommendations to the Board regarding his compensation. It also participates in selecting the senior executives of the company and its subsidiaries and in developing a succession plan. The Committee is chaired by Marie-France Poulin.

Activities: In 2013, the Human Resources Committee held five meetings, including a joint meeting with the Finance Committee to examine Hydro-Québec's Business Plan, objectives, and corporate risk management. It evaluated whether or not the company had met its annual performance objectives. The Committee also examined the overall compensation of Hydro-Québec's employees, executives and President and Chief Executive Officer and of the employees and executives of its wholly owned subsidiaries, and recommended approval by the Board. It also recommended that the Board approve the mandate to negotiate that led to the renewal of collective agreements of unionized employees, as well as the updating of the bylaw governing Hydro-Québec's pension plan. In addition, it closely monitored the business risks related to human resources. It also studied the *Report of Activities of the Corporate Ombudsman 2012* and examined the annual report on the application of the corporate policy Our Human Resources.

ENVIRONMENT AND PUBLIC AFFAIRS (E)

Mandate: The role of the Environment and Public Affairs Committee is to provide opinions and make recommendations to the Board of Directors on environmental management and compliance; integration of sustainable development principles; public health and safety; community relations; the company's social responsibility and its contribution to the community; and its public image. It also receives environmental incident reports and related claims, opinions, investigations and legal proceedings. The Committee is chaired by Suzanne Gouin.

Activities: The Environment and Public Affairs Committee met five times in 2013. It studied the results of the President and Chief Executive Officer's annual environmental management review as well as the semiannual reports on environmental compliance. The Committee recommended that the Board approve the granting of donations and sponsorships according to Hydro-Québec's Donation and Sponsorship Policy. As well, it examined the annual results with respect to the company's communication and public relations activities, financing of university research chairs and the international cooperation initiatives financed by Hydro-Québec in French-speaking nations. It reviewed the annual activity reports of the liaison committees established by the company with the Union des producteurs agricoles and the Fédération québécoise des municipalités, two groups representing Québec agricultural producers and municipalities. The Committee also benefited from a presentation on Hydro-Québec's communication activities.

FINANCE (F)

Mandate: The Finance Committee's role is to advise the Board on Hydro-Québec's directions, policies, strategies and overall objectives related to financing, borrowings, insurance, banking and risk management; on major investment projects outside Québec; and on important matters related to technology marketing. In addition, every year, it examines the company's consolidated portfolio of residual business risks. This Committee is chaired by Michel Plessis-Bélair.

Activities: The Finance Committee held four meetings in 2013, including a joint meeting with the Human Resources Committee for the purpose of analyzing the company's Business Plan, objectives and corporate risk management. It examined various annual programs and files of a financial nature before recommending their approval by the Board: borrowings, guarantees, financial risk management, swaps, sinking fund management, derivatives and underlying instruments, and counterparty risk management for energy trades performed by Hydro-Québec Production on wholesale markets. It also recommended Board approval of credit limits for each counterparty, based on credit rating, for each of the company's functions concerned. In addition, it followed up periodically on financial programs and major capital projects and reviewed the annual report on the application of the corporate policy Our Assets. The Committee recommended that the Board update the company's financial policies.

PENSION PLAN FINANCIAL MANAGEMENT (G)

Mandate: The role of the Pension Plan Financial Management Committee is to advise the Board on the directions, policies, strategies and overall objectives established by Hydro-Québec for its pension plans the Pension Plan Funding Policy, the Pension Fund Investment Management Policy, actuarial valuations of the plan, choice of the benchmark portfolio, the plan's financial position and plan expenses. It also expresses its opinion on any other aspect of pension fund management. The Committee is chaired by Louis Lagassé.

Activities: In 2013, the Pension Plan Financial Management Committee met three times. It examined the annual actuarial valuation for purposes of pension plan funding and solvency, and recommended its approval by the Board. The Committee also recommended that the Board approve amendments to the Pension Fund Investment Management Policy, the annual pension fund management and pension plan administration budgets, and the reappointment of the actuary for the next annual valuation. The Committee monitored the implementation plan concerning the Pension Fund Investment Management Policy. Furthermore, it evaluated the performance and structure of the pension fund portfolio and the performance of specialized portfolio managers. Lastly, it closely monitored changes in the pension plan's financial position.

DIRECTOR ATTENDANCE AT MEETINGS OF THE BOARD OF DIRECTORS AND BOARD COMMITTEES IN 2013

DIRECTORS	Notes	Board	A	B	C	D	E	F	G
Number of meetings		**12**		**2**	**6**	**5**	**5**	**4**	**3**
Pierre Karl Péladeau A B C D E F G	1	4		1	3	3	3	3	1
Thierry Vandal A E F G	2	12					4	4	3
Anik Brochu E		10					4		
Carl Cassista C D	3	11			6	4			
Michelle Cormier C		11			6				
Patrick Déry		10							
Suzanne Gouin D E		10				4	5		
Isabelle Hudon E		8					4		
Louis Lagassé A F G		12						4	3
Jacques Leblanc B C	4	12		2	6				1
Michel Plessis-Bélair A B F G		10		1				3	2
Marie-France Poulin A B D		11		2		5			
Martine Rioux		10							
Marie-Anne Tawil B C	5	12		2	6			1	
Christyne Tremblay	6	9							

OUTGOING DIRECTORS	Note	Board	A	B	C	D	E	F	G
Number of meetings		**2**					**1**		
Gaston Blackburn E (resignation: March 12, 2013)		2					1		
Number of meetings		**4**		**1**	**2**	**2**	**2**	**1**	**1**
Michael L. Turcotte A B C D E F G (end of mandate: May 14, 2013)		4		1	2	2	2	1	1
Number of meetings		**4**							
Richard Savard (resignation: June 10, 2013)	7	1							

Board Committees

A. Executive
B. Governance and Ethics
C. Audit
D. Human Resources
E. Environment and Public Affairs
F. Finance
G. Pension Plan Financial Management

1. Pierre Karl Péladeau was appointed to the Board of Directors effective May 15, 2013.
2. Thierry Vandal attends meetings of the Governance and Ethics, Audit and Human Resources committees as a guest.
3. Carl Cassista was appointed to the Audit Committee effective February 20, 2013.
4. Jacques Leblanc participated as a substitute member in the meeting of the Pension Plan Financial Management Committee held on May 14, 2013.
5. Marie-Anne Tawil participated as a substitute member in the meeting of the Finance Committee held on October 10, 2013.
6. Christyne Tremblay was appointed to the Board of Directors effective June 19, 2013.
7. Richard Savard was appointed to the Board of Directors effective February 20, 2013.

At left
Untitled (François),
silver print by
Albert Dumouchel,
circa 1953. © Succession
Albert Dumouchel

Above
The Realm of Minerva (Learning to Paint),
oil on linen canvas by
Leopold Plotek, 2011.
© Leopold Plotek

Hydro-Québec's Board of Directors complies with the requirements of the *Hydro-Québec Act* with regard to governance. It also follows the guidelines of the Canadian Securities Administrators applicable to state-owned enterprises, even though it is not legally bound to do so because Hydro-Québec is not publicly traded.

INDEPENDENCE

Apart from Thierry Vandal, President and Chief Executive Officer, Christyne Tremblay, Deputy Minister of Natural Resources, and Patrick Déry, Superintendent of Solvency at the Autorité des marchés financiers, the Board members are independent directors, i.e., they have no direct or indirect relationships or interests, for example of a financial, commercial, professional or philanthropic nature, that could interfere with the quality of their decisions as regards the interests of the company.

The Québec government appoints the members of the Board based on the expertise and experience profiles established by the company. Directors are appointed for a term of up to four years and the Chairman for a term of up to five years; they may be reappointed twice, successively or not.

RULES OF ETHICS

The Board is responsible for compliance with the rules set out in the *Code of Ethics and Rules of Professional Conduct for Directors, Executives and Controllers of Hydro-Québec*, which are based primarily on the *Regulation respecting the ethics and professional conduct of public office holders*.

COMPENSATION AND OTHER BENEFITS PAID TO DIRECTORS

Compensation for all independent directors, except the Chairman, is set out in Order-in-Council No. 610-2006. Compensation consists of a basic annual retainer of $17,555 plus a meeting fee of $832 for each Board or committee meeting. A yearly supplement of $5,548 is paid to the chairs of the Board committees. Board members are also entitled to reimbursement of travel expenses incurred in the performance of their duties. In accordance with Order-in-Council No. 422-2013, the Chairman of the Board waives all compensation related to his duties.

DIRECTOR INDUCTION AND TRAINING PROGRAM

When Board members are first appointed, they receive training on their roles and responsibilities as well as the nature and business context of Hydro-Québec's principal activities. Board members are informed about the company's legal and regulatory context, with particular emphasis on the governance of a government-owned corporation. In addition, Board committee members receive documents regarding the mandate of their committee and the matters it handles. The director induction and training program also includes presentations on major issues and projects, as well as tours of the company's facilities.

In 2013, Board members visited the Romaine-2 and Romaine-3 jobsites as well as Hydro-Québec's research institute. They also attended presentations regarding progress of construction work at the Romaine complex and transportation electrification projects. Some Board members also visited the energy trading floor and Hydro-Québec's system control centre.

DEINTEGRATION

In 1997, Hydro-Québec implemented an organizational structure that allows some units to work independently from each other while remaining part of the same company. This is the principle of deintegration, or unbundling.

The operations of these units are subject to set rules of conduct and ethics. The Distributor's electricity procurement process is governed by the *Code of Ethics on Conducting Calls for Tenders*, which was approved by the Board of Directors and the Régie de l'énergie. The code ensures that the tendering process is conducted fairly for all electricity suppliers. The Régie follows up annually on its application. Moreover, the Régie de l'énergie approved the *Code de conduite du Distributeur* (Distributor Code of Conduct) in March 2006. This code applies to transactions between the Distributor and the Generator for procurement not subject to the tendering process. It also governs dealings between the Distributor and its affiliates, with the aim of preventing affiliates' business operations from being financed, in whole or in part, by electrical service customers. The Distributor provides details on the application of the code in its annual report to the Régie. The *Code of Ethics on Conducting Calls for Tenders* and the *Code de conduite du Distributeur* (in French only) are available for consultation on the company's Web site.

Hydro-Québec TransÉnergie is subject to the *Transmission Provider Code of Conduct* approved by the Régie in 2004. This code governs relations between the Transmission Provider and its affiliates, and its purpose is to prevent any form of preferential treatment or cross-subsidization. The information that must be made public pursuant to the *Transmission Provider Code of Conduct* is published online at OATI webOASIS™/SM (**www.oatioasis.com/hqt**). The Transmission Provider reports on the application of the *Transmission Provider Code of Conduct* in its annual report to the Régie.

The *Reliability Coordinator Code of Conduct*, which was approved by the Régie de l'énergie in December 2007 after Hydro-Québec TransÉnergie's Direction – Contrôle des mouvements d'énergie—the unit responsible for system control—was designated as Reliability Coordinator for Québec, came into force in January 2008 and was amended in September 2011. The purpose of this code is to ensure that the reliability of the transmission system remains a top priority and to prevent any form of preferential treatment in favor of other branches of the Transmission Provider, its affiliates or other system users. The application of the *Reliability Coordinator Code of Conduct* is the subject of an annual report to the Régie.

INTERNAL CONTROL SYSTEM

The company's Management maintains an internal control system that meets the demanding requirements of the internationally recognized framework developed in 1992 by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission. The company communicates Hydro-Québec's rules of ethics and Code of Conduct to employees, primarily to ensure the proper management of resources and the orderly conduct of business. The objective of this system is to provide reasonable assurance that financial information is relevant and reliable and that Hydro-Québec's assets are appropriately recorded and safeguarded. The system includes a business risk management process and the development of an annual internal control plan that requires the involvement of all divisions and corporate units. Internal auditing helps to determine whether the internal control system is sufficient and effective and to assess the company's policies and procedures. It includes a performance audit to ensure the efficiency, effectiveness and cost-effectiveness of the company's activities. The Internal Auditor and the independent auditors may meet the Audit Committee, without restriction, to discuss any aspect of their mandate, with or without Management present.

DIRECTORS' COMPENSATION AND BENEFITS IN 2013[a, b]

	Base compensation[c, d]	Meeting fees[c]	Taxable benefits[e]
Anik Brochu	$18,411	$11,650	$115
Carl Cassista	$18,411	$16,630	$5,186
Michelle Cormier	$18,411	$13,717	$1,538
Suzanne Gouin	$24,145	$15,379	$188
Isabelle Hudon	$18,411	$9,996	$115
Louis Lagassé	$24,163	$15,387	$4,166
Jacques Leblanc	$24,163	$17,055	$4,166
Michel Plessis-Bélair	$24,163	$12,877	$188
Marie-France Poulin	$24,163	$14,132	$115
Martine Rioux	$18,411	$7,897	$115
Marie-Anne Tawil	$18,411	$17,045	$5,186

a) By law, non-independent directors—Thierry Vandal, Patrick Déry and Christyne Tremblay—receive no compensation or meeting fees as members of Hydro-Québec's Board of Directors.

b) In accordance with Order-in-Council No. 422-2013, Pierre Karl Péladeau waives all compensation related to his position as Chairman of the Board of Directors.

c) Pursuant to Orders-in-Council Nos. 1099-2005 and 610-2006.

d) Includes indexing from April 1, 2013.

e) Insurance and health assessments paid by Hydro-Québec.

MONITORING OF AUDITOR INDEPENDENCE

Hydro-Québec uses various mechanisms to enable the Audit Committee to ensure that independent auditors remain independent, including a process whereby any assignment that could be given to them is analyzed beforehand. This process is governed by rules setting out conditions for approval of assignments; among other things, certain services cannot be provided by the auditors. Reporting to the Audit Committee on this subject includes the tabling of reports on fees billed by the auditors. With respect to the Auditor General of Québec, who is one of Hydro-Québec's auditors, no professional service assignment may be given to him because he serves the National Assembly exclusively. Since his independence is ensured by the *Auditor General Act*, he is not subject to the mechanisms described above.

AUDITORS' FEES

KPMG LLP, Ernst & Young LLP and the Auditor General of Québec are Hydro-Québec's independent auditors for 2013. Professional fees billed by KPMG LLP and Ernst & Young LLP in 2013 for services other than auditing and certification amounted to 7.2% of the total $4.9 million in fees billed.

ACCESS TO DOCUMENTS AND PROTECTION OF PERSONAL INFORMATION

Hydro-Québec carefully protects the personal information of its customers, suppliers and employees and respects the public's right of access to information. It takes all the necessary measures to comply with the *Act respecting Access to documents held by public bodies and the Protection of personal information*, or the "Access Act."

To facilitate access to information, Hydro-Québec publishes many documents on its Web site at **www.hydroquebec.com/publications**, in accordance with the *Regulation respecting the distribution of information and the protection of personal information*. This site also provides explanations regarding the public's right of access to information and the protection of personal information, including an overview of the procedure for requesting access to a document. Other information available on the site includes the *Hydro-Québec Act*, the company's regulations, codes and policies, and its major publications.

In addition, Hydro-Québec makes documents and information of public interest available on its Web site (**www.hydroquebec.com**). This includes information concerning construction projects under study and in progress, next-generation meters, electrical safety, energy efficiency, sustainable development, technological innovation, ground transportation electrification and the services and programs offered to Hydro-Québec's customers.

Furthermore, pursuant to the *Action Plan for People with Disabilities 2013*, Hydro-Québec has committed itself to taking all reasonable measures to ensure that people with disabilities can exercise their right to obtain complete, high-quality information.

In 2013, the Commission d'accès à l'information du Québec (CAI) released two inspection reports regarding Hydro-Québec. The first inspection focused on the company's use of next-generation meters and the deployment of an advanced metering infrastructure. The CAI noted that measures had been put in place by Hydro-Québec to protect personal information. The CAI's second inspection concerned compliance with the Access Act with respect to the processing of access requests in the period from 2009 to 2011. The CAI concluded that the handling of requests was in compliance with the Act.

In 2013, Hydro-Québec received 262 requests for access to information under the Access Act. Most applicants wanted to obtain documents such as studies, reports and contracts, or documents containing personal information about them. All the requests were processed within the prescribed time limit; 193 were granted in full or in part and 45 were refused. Request denials were due mainly to security issues or to the commercial or strategic nature of the documents requested. As for the 24 remaining requests, either Hydro-Québec was unable to fulfill them, for instance because it did not have the documents, or the request was withdrawn. Twelve Hydro-Québec responses were the subject of requests for review by the CAI.

ETHICS

Hydro-Québec attaches great importance to ethics in all aspects of its activities. As a government-owned corporation, Hydro-Québec must demonstrate exemplary probity, and it can do so only with the consistent support of its employees, who must meet the highest standards with respect to ethics and irreproachable conduct. Loyalty, integrity, respect, discretion and fairness are fundamental values reflecting Hydro-Québec's social commitment to its customers and the community. Ethical rules resulting from these values are set out in the *Code of Ethics and Rules of Professional Conduct for Directors, Executives and Controllers of Hydro-Québec* (see page 114) and in the Code of Conduct for employees. This document, which is available at **www.hydroquebec.com/publications**, has a twofold purpose: facilitate an understanding of the ethical principles set out in the policy Our Management and approved by the Board of Directors, and help all employees perform their duties in keeping with Hydro-Québec's values.

Hydro-Québec managers at all reporting levels play a key role in applying the company's ethical principles. They see to it that the Code of Conduct is observed, thereby upholding the company's values. The Executive Vice President – Corporate Affairs and Secretary General, who is responsible for interpreting the Code of Conduct, may issue opinions on ethical questions with a view to preventing or rectifying a situation.

LANGUAGE GUIDELINES

In 2013, Hydro-Québec continued its efforts to promote the quality of the French used in the company's internal and external communications. Various proficiency courses were offered to employees and terminology bulletins were published on the intranet.

The company's language policy is available via the intranet. Moreover, employees with questions about how the *Charter of the French Language* should be applied at Hydro-Québec can obtain answers by contacting the unit responsible for terminological and linguistic consultation.

SUSTAINABLE DEVELOPMENT

The Sustainability Report discusses the company's main sustainable development initiatives, the progress made in this area and the company's sustainable energy choices. The report is based on the Global Reporting Initiative Guidelines. It is published at **www.hydroquebec.com/sustainable-development**, where additional information is provided on the company's performance with regard to sustainable development.

COMPENSATION AND OTHER BENEFITS PAID TO THE COMPANY'S FIVE MOST HIGHLY COMPENSATED OFFICERS IN 2013

	Base salary as at December 31	Variable compensation[a]	Perquisites used[b]	Other taxable benefits		
				Automobile		Life insurance and health insurance
				Nature of benefit	Amount	
Thierry Vandal President and Chief Executive Officer, Hydro-Québec	$459,988	$113,421	–	Executive vehicle	$2,126	$7,985
André Boulanger President, Hydro-Québec TransÉnergie	$386,002	$92,641	$2,586	Car allowance or vehicle, plus parking	$23,453	$10,449
Richard Cacchione President, Hydro-Québec Production	$384,383	$92,252	$5,000		$13,929	$8,373
Réal Laporte[c] President, Hydro-Québec Équipement et services partagés and President and Chief Executive Officer, Société d'énergie de la Baie James	$371,347	$89,123	$2,178		$14,722	$8,010
Élie Saheb Executive Vice President – Technology	$351,147	$84,275	$1,158		$19,396	$20,822
	Pension Plan and Supplementary Benefits Program					
	Basic Hydro-Québec Pension Plan (HQPP) - Usual contribution under the plan - Pension calculated on the basis of average salary for the best five years - Credit of 2.25% per contribution year - Recognition of 66.67% of the maximum bonus as pensionable earnings for purposes of the HQPP					
	Supplementary Benefits Program - Contribution assumed by Hydro-Québec - Additional benefits to offset the tax limits under the HQPP (lifting of ceiling on the permitted maximum amount) - Payment of benefits according to the same terms as those applicable under the HQPP *Other provisions applicable to the President and Chief Executive Officer of Hydro-Québec* - Pension calculated on the basis of average salary for the best three years (less pension payable under the HQPP) - Credit of 3.5% per contribution year (less pension credit under the HQPP) - Recognition of two years for each year of participation - Recognition of 100% of the maximum bonus as pensionable earnings (less portion of bonus recognized under the HQPP) - Pension limited to 80% of the average of base salary and variable compensation for the best three years					

a) In accordance with the provisions of the *Act to implement certain provisions of the Budget Speech of 30 March 2010, reduce the debt and return to a balanced budget in 2013–2014* (S.Q. 2012, c. 20), as amended.

b) Financial and succession planning, sports clubs and professional dues.

c) Réal Laporte does not receive any separate compensation as President and Chief Executive Officer, Société d'énergie de la Baie James.

COMPENSATION AND OTHER BENEFITS PAID TO THE ONLY OFFICER COMPENSATED BY ONE OF THE COMPANY'S WHOLLY OWNED SUBSIDIARIES IN 2013

	Base salary	Variable compensation[a]	Perquisites[b]	Benefits
Sylvain Perron	$115,309	$16,143	$2,000	Hydro-Québec pension plan and group insurance plan

a) In accordance with the provisions of the *Act to implement certain provisions of the Budget Speech of 30 March 2010, reduce the debt and return to a balanced budget in 2013–2014* (S.Q. 2012, c. 20), as amended.

b) Financial and succession planning and sports clubs.

CODE OF ETHICS AND RULES OF PROFESSIONAL CONDUCT

FOR DIRECTORS, EXECUTIVES AND CONTROLLERS OF HYDRO-QUÉBEC

PART I – INTERPRETATION AND APPLICATION

1. In this Code, unless the context indicates otherwise:

a) **"director"** means, with respect to the Company, a member of the Board of Directors of the Company, whether or not working full-time within the Company;

b) **"Governance and Ethics Committee"** means the Governance and Ethics Committee established in its present form by resolution of the Board of March 16, 2007 (HA-33/2007[1]);

c) **"spouse"** includes marriage partners and persons living as if married for more than one year;

d) **"Board"** means the Board of Directors of the Company;

e) **"contract"** includes a proposed contract;

f) **"control"** means the direct or indirect ownership of securities, including shares, conferring more than 50% of voting rights or economic interest without this right depending on the occurrence of a particular event or allowing the election of the majority of directors;

g) **"controller"** means the controller of the Company and the controllers of divisions or groups or units reporting to the President and Chief Executive Officer of the Company;

h) **"executive"** with respect to the Company means any contractual manager whose employment conditions are subject to the approval of the Board;

i) **"enterprise"** means any form that can be taken by the organization for the production of goods or services or any other business of a commercial, industrial or financial nature or any group seeking to promote certain values, interests or opinions or to exercise an influence on public officials; however, this does not include the Company or a non-profit association or group that has no financial link with the Company or is not incompatible with the objects of the Company;

j) **"subsidiary"** means a legal person or company controlled directly or indirectly by the Company;

k) **"related party"** means any Company subsidiary, including a subsidiary of the Hydro-Québec Pension Fund, any partnership (joint venture or common enterprise in which the parties exercise joint control) and any associate (an entity in which the investor holds 20% or more of the voting rights) of the Company;

l) **"associated person"** with reference to a director, executive or controller of the Company means:

1° his spouse, children and relatives, and the children and relatives of his spouse;

2° his partner;

3° a succession or trust in which he has a substantial interest similar to that of a beneficiary or in respect of which he serves as liquidator, trustee or other administrator of the property of others, mandatary or depositary; or

4° a legal person of whom he owns securities making up more than 10% of a class of shares carrying voting rights at any shareholders meeting or the right to receive any declared dividend or a share of the remaining property of the legal person in the event of liquidation.

m) **"Regulation"** means the *Regulation respecting the ethics and professional conduct of public office holders* [Order-in-Council 824-98 of June 17, 1998 (1998) 130 G.O. II, 3474, pursuant to sections 3.01 and 3.02 of the *Act respecting the Ministère du Conseil exécutif*, R.S.Q., c. M-30], as amended from time to time;

n) **"Company"** means Hydro-Québec.

2. In this Code, the prohibition to perform an act also applies to any attempt to perform it and any participation in it or incitement to perform it.

2.1 This Code applies to the directors, the President and Chief Executive Officer, other executives of the Company and its controllers. The executives and controllers of the Company are also governed by the *Code of Conduct* or other similar guidelines that may exist from time to time within the Company. In the event of divergence between this Code and any such document, the more restrictive text shall apply.

The directors and the President and Chief Executive Officer are also subject to the Regulation.

PART II – ETHICAL PRINCIPLES AND GENERAL RULES OF PROFESSIONAL CONDUCT

3. The director, executive or controller is appointed to contribute to the achievement of the Company's mission in the best interest of Québec. Accordingly, he is expected to use his knowledge, abilities and experience in a way that will promote the effective, fair and efficient accomplishment of the objectives assigned to the Company by law and the good administration of the property it owns as mandatary of the State.

His contribution shall be made with respect for the law and with honesty, loyalty, prudence, diligence, efficiency, application and fairness.

3.1 The director, executive or controller respects the following principles in the performance of his duties:

- the values underlying the activities of the Company as a government-owned business company, which include customer satisfaction, a "business first" approach, respect for employees, equitable treatment of customers, suppliers and employees, quality improvement, respect for the environment, partnership with local communities and safeguarding the future; and
- the principles set out in the basic policies of the Company, expressing commitments and conveying a business culture with regard to customers, human resources, acquisition of assets and services, business partners, finance, assets, the environment, social role, management, security and financial disclosure.

3.2 The director, executive or controller is required, in the performance of his duties, to respect the ethical principles and rules of professional conduct provided by law, the Regulation as applicable, and those defined in this Code. In case of discrepancy, the more stringent rules and principles apply.

When in doubt, act according to the spirit of these principles and rules.

A director, executive or controller who, at the request of the Company, serves as director or member of an undertaking or a company, is held to the same standards.

3.3 Every director, executive and controller must report any violation to this Code of which he has knowledge or which he suspects has occurred, or is occurring, to the Chairman of the Board and to the Secretary.

This report shall be treated on a confidential basis.

4. The director, executive or controller shall not merge the assets of the Company with his own; he may not use the assets of the Company or information he obtains as a result of his duties for his own profit or the profit of others. These obligations continue even after the director, executive or controller has ceased to hold his position.

Specifically, a director, executive or controller may not engage in transactions involving securities the value of which could be influenced by certain actions of the Company, specifically with clients, suppliers or other partners if he has information unknown to the public in that respect.

1. The committee's mandate was amended by the Board on June 13, 2008 (HA-104/2008).

5. The director, executive or controller shall seek, in the performance of his duties, only the interest of the Company to the exclusion of his own interest or that of others.

5.1 The director, executive or controller is bound to discretion in regard to anything that comes to his knowledge in or during the performance of his duties and is at all times bound to maintain the confidentiality of such information.

5.2 In the performance of his duties, the director, executive or controller shall make decisions without regard for any partisan political considerations.

The Chairman of the Board, the director working full-time within the Company, the executive and the controller shall demonstrate reserve in the public expression of their political opinions.

6. The director, executive or controller may not directly or indirectly grant, solicit or accept a favor or an undue advantage for himself or for a third party.

In particular, he may not accept or solicit an advantage from a person or undertaking doing business with the Company or a subsidiary or acting in the name of or on behalf of such a person or undertaking if this advantage is intended or likely to influence him in the performance of his duties or generate expectations of this nature.

6.1 The director, executive or controller shall, in making decisions, avoid allowing himself to be influenced by offers of employment.

6.2 The director, executive or controller may not accept any gift or hospitality except what is customary and modest in value.

Any other gift or hospitality shall be returned to the giver.

7. The director may not make a commitment to a third party or grant them any guarantee relative to a vote he may be asked to make or any decision whatsoever that the Board may be asked to make.

7.1 The director, executive or controller may not, in the performance of his duties, deal with a person who has ceased to be a director, executive or controller of the Company for less than one year if this person is acting on behalf of a third party with respect to a proceeding, negotiation or other transaction to which the Company is a party and about which he has information unknown to the public.

7.2 After ceasing his duties, no director, executive or controller may disclose confidential information he has obtained or give anyone advice based on information unknown to the public concerning the Company or any other undertaking or company with which he had direct and substantial dealings during the year preceding the date on which he ceased his duties.

In the year following that date, he may not act on behalf or on account of another party with respect to a procedure, negotiation or other transaction to which the Company is a party and about which he has information unknown to the public.

8. The director, executive or controller shall collaborate with the Chairman of the Board or the Governance and Ethics Committee on an issue of ethics or professional conduct when asked to do so.

8.1 The director, executive or controller who intends to be a candidate for elective office shall inform the Chairman of the Board of this intention.

The Chairman of the Board or President and Chief Executive Officer with the same intention shall inform the Secretary General of the Conseil exécutif.

PART III – DUTIES AND OBLIGATIONS OF DIRECTORS, EXECUTIVES AND CONTROLLERS WITH RESPECT TO CONFLICTS OF INTEREST

PREVENTION OF CONFLICTS OF INTEREST

9. The director, executive or controller shall avoid placing himself in a situation in which his personal interest is in conflict with the duties of his position or in which reasonable doubt is cast on his ability to perform these duties with undivided loyalty.

In the event that this Code does not include provisions for a certain situation, the director, executive or controller must determine whether his conduct is in accordance with how the Company could reasonably expect a director, executive or controller to conduct himself in such circumstances. He must also determine whether a reasonably well-informed person would conclude that the situation might influence his decisions and impair his objectivity and impartiality in the performance of his duties for the Company.

10. A director who is employed full-time within the Company or one of its subsidiaries shall also avoid performing duties or being bound by commitments that prevent him from devoting the time and attention that the normal exercise of his duties requires.

As for other directors, they shall be sure to devote the time and attention reasonably required in the circumstances for the execution of their duties.

10.1 No director holding a full-time office with the Company, under pain of forfeiture of office, may have any direct or indirect interest in an undertaking, company or association that puts his personal interest in conflict with that of the Company.

However, such forfeiture is not incurred if that interest devolves to him by succession or gift, provided that he renounces or disposes of it with all possible dispatch. Meanwhile, sections 12, 13, 15 and 18 apply to this director.

Every other director who has an interest in an undertaking shall, on pain of forfeiture of his office, comply with the provisions of sections 12, 13, 15 and 18.

11. A director, executive or controller of the Company who serves as director, executive or controller of an affiliated enterprise shall be specifically authorized by the Board to:

a) hold shares, rights or any other security issued by such enterprise and conferring voting rights or economic interest in it or the right to subscribe or buy such shares, rights or securities;

b) benefit from any profit-sharing program, unless this director, executive or controller works full-time for the enterprise and the profit-sharing program is closely linked with the individual performance of the director, executive or controller within the affiliated enterprise;

c) benefit from a pension plan granted by the affiliated enterprise if he does not hold a full-time position within the enterprise; or

d) benefit from any advantage granted in advance in the case of a change of control of the affiliated enterprise.

For purposes of this section, "affiliated enterprise" means a legal person or company in which the Company owns, directly or indirectly, securities, including shares, conferring more than 10% of voting rights or economic interest.

12. A director, executive or controller who:

a) is party to a contract or a transaction with the Company or a related party;

b) has a direct or indirect interest in an enterprise that is a party to a contract or a transaction with the Company or a related party or is a director, executive, controller or employee of this enterprise, except, in the latter case, if it is an enterprise that belongs to the same group as the Company; or

c) enjoys a direct or indirect benefit in relation to a contract or transaction that reasonably may be considered likely to influence decision-making;

shall disclose the nature and extent of his interest in writing to the Chairman of the Board and to the Secretary as soon as he has knowledge.

For the purposes of this section, a proposed contract or a proposed transaction, including the negotiations related thereto, is considered a contract or transaction.

The same applies to a director who has a direct or indirect interest in any issue being considered by the Board of Directors.

The director shall at all times abstain from conveying any information of any kind to any employee, controller, executive or director of the Company with respect to this contract or interest.

The director shall abstain from deliberating or voting on any question linked to this interest and avoid trying to influence the related decision. The director shall also withdraw from the meeting for the duration of deliberations and voting on this question. These restrictions do not apply when the decision concerns an enterprise belonging to the same group as the Company.

12.1 A director who is a member of the Audit Committee of the Board of Directors may not have an interest in the Company or a subsidiary. In particular, he may not accept from the Company or a subsidiary fees with respect to consulting, consulting services or any other similar service.

13. The disclosure required by section 12 occurs, in the case of a director, during the first meeting:

a) in the course of which the contract, the transaction or question concerned is under study;

b) following the time at which the director who had had no interest in the contract, the transaction or question concerned acquires such interest;

c) following the time at which the director acquires an interest in the already concluded contract or a transaction; or

d) following the time at which any person with an interest in a contract, a transaction or a question under study becomes a director.

14. An executive or controller who is not a director shall make the disclosure required in section 12 immediately after:

a) having learned that the contract, the transaction or question concerned was or will be studied at a meeting;

b) having acquired the interest, if it is acquired after the contract or the transaction was concluded or the decision made; or

c) having become an executive or controller, if he becomes one after acquiring the interest.

The executive or controller may not try to influence the directors' decision in any way.

15. The director, executive or controller shall make the disclosure required in section 12 as soon as he has knowledge of a contract or a transaction contemplated by this section which, as part of the normal business of the Company, does not require the approval of the directors.

16. Sections 12 to 15 apply also when the interest concerned is held by a person associated with the director, executive or controller.

17. The director, executive or controller shall notify the Chairman of the Board or the Secretary in writing of the rights he may invoke against the Company, by indicating their nature and their value, as soon as these rights come into existence or when he acquires knowledge of them.

18. The director, executive or controller shall submit to the Chairman of the Board, within 30 days of being appointed and on January 31 of each year in which he remains in office, an attestation in the form provided in Schedule B and containing the following information:

a) the name of any enterprise (including its area of activity and place of operations), in which he owns directly or indirectly securities or assets, including common shares, when the holding of securities is greater than 10% of the total issued capital and shares outstanding, specifying the nature and proportion of securities owned and value of assets;

b) the name of any enterprise for which he performs functions or in which he has an interest in the form of a debt, right, priority, mortgage or significant commercial or financial benefit; and

c) any other fact, situation or transaction of which he has knowledge and that could put him in a conflict of interest situation or be perceived as such including the situations mentioned in section 12 a), b) and c) of the Code, which concern also an associated person.

A director, executive or controller to whom the provisions of paragraphs a) to c) do not apply shall fill out an attestation to that effect and present it to the Chairman of the Board and to the Secretary.

The director, executive or controller shall also produce such an attestation within 30 days of the occurrence of a significant change in its content.

The attestations presented pursuant to this section are treated as confidential.

19. The Secretary of the Company shall ensure that the declarations received pursuant to section 12 to 18 are made available to the Directors and the Governance and Ethics Committee.

Moreover, the Secretary of the Company notifies the Chairman of the Board and the Governance and Ethics Committee of any failure to satisfy the obligations provided for in sections 12 to 18 as soon as the Secretary becomes aware of them.

WAIVERS

20. This Code does not apply:

a) to owning an interest by way of a mutual fund in whose management the director, executive or controller plays no role directly or indirectly;

b) to owning interests through a blind trust whose beneficiary cannot know its makeup;

c) to owning a minimum number of shares required to be eligible as director of a corporation;

d) to an interest which, by its nature and extent, is common to the public at large or a particular sector in which the director, executive or controller operates;

e) to a directors' liability insurance agreement; or

f) to the owning of shares issued or guaranteed by the Company, a government or municipality under the same conditions for everyone.

ATTESTATION

20.1 Within thirty days of the adoption of this Code by the Board, thereafter, no later than January 31 of each year, each director, executive or controller shall submit to the Chairman of the Board and the Secretary of the Company the attestation appearing in Schedule C.

Each new director, executive or controller shall do the same within thirty days of his appointment to this position.

PART IV – REMUNERATION

20.2 The director, executive or controller, for the exercise of his duties, is entitled solely to the remuneration related to those duties. Such remuneration may not include, even partially, monetary advantages such as those established, in particular, by a profit-sharing plan based on the variation in the value of shares or on a stake in the capital stock of the Company.

20.3 A director, executive or controller dismissed for just and sufficient cause may not receive a severance allowance or payment.

20.4 A director, executive or controller who quits his duties, who has received or is receiving a severance allowance or payment and who holds an office, employment or any other remunerated position in the public sector during the period corresponding to that allowance or payment shall refund the part of the allowance or payment covering the period for which he receives a salary or shall cease to receive it during that period.

However, if the salary he receives is lower than that he received previously, he shall be required to refund the allowance or payment only up to the amount of his new salary, or he may continue to receive the part of the allowance or payment that exceeds his new salary.

20.5 Anyone who has received or is receiving a severance allowance or payment from the public sector and receives a salary as director, executive or controller during the period corresponding to that allowance or payment shall refund the part of the allowance or payment covering the period for which he receives a salary or shall cease to receive it during that period.

However, if the salary he receives as director, executive or controller is lower than that he was receiving previously, he shall be required to refund the allowance or payment only up to the amount of his new salary, or he may continue to receive the part of the allowance or payment that exceeds his new salary.

20.6 A President and Chief Executive Officer who has ceased to perform his duties, who has received so-called assisted departure measures and who, within two years after his departure, accepts an office, employment or any other remunerated position in the public sector shall refund the sum corresponding to the value of the measures received by him, up to the amount of the remuneration received, by the fact of his return to the public sector, during that two-year period.

20.7 Part-time teaching by a director, executive or controller is not covered by sections 20.4 to 20.6.

20.8 For the application of sections 20.4 to 20.6, "public sector" means the bodies, institutions and companies referred to in the section 33 of the Regulation in Schedule A.

The period covered by the severance allowance or payment referred to in sections 20.4 and 20.5 shall correspond to the period that would have been covered by the same amount if the person had received it as salary in his prior office, employment or position.

PART V – APPLICATION OF THE CODE

COMPETENT AUTHORITIES

20.9 The Associate Secretary General for Senior Positions of the Ministère du Conseil exécutif is the competent authority for the application of this Code with respect to the Chairman of the Board and the other directors of the Company appointed by the Government.

The Chairman of the Board is the competent authority with respect to all directors of wholly owned subsidiaries, executives or controllers of the Company.

The Chairman of the Board shall ensure observance of the ethical principles and rules of professional conduct by the directors, executives and controllers of the Company.

21. The Governance and Ethics Committee has as its mission to advise the competent authority with respect to ethics and professional conduct.

The Governance and Ethics Committee also performs the duties invested in it by the Board and performs any other duties related to ethics entrusted to it by the Board.

In the performance of its duties, the Governance and Ethics Committee may become acquainted with the attestations contemplated by section 19.

22. When a director, executive or controller is accused of a violation of ethics or the rules of professional conduct, the Governance and Ethics Committee is responsible for collecting all relevant information. It makes a report of its findings to the competent authority and recommends appropriate measures, if any.

The competent authority notifies the director, executive or controller of the alleged violations and the possible penalties. It informs him that he has seven days in which to respond and if he requests, to be heard on this matter.

23. The Governance and Ethics Committee may render advisory opinions to directors, executives or controllers on the provisions of this Code and their application to specific cases, even hypothetical ones. It is not required to limit its views to the terms contained in the request.

23.1 In order to allow an appropriate decision to be made in the case of an urgent situation requiring fast response or in an alleged case of serious misconduct, the competent authority may temporarily relieve of his duties, with remuneration, the director, executive or controller who is accused of violations of ethics or the rules of professional conduct.

24. The Secretary of the Company keeps records in which are stored the statements, disclosures and attestations that must be submitted to it under this Code, the reports and advisory opinions of the Governance and Ethics Committee and the decisions of the competent authority with respect to ethics and professional conduct.

The Secretary shall also take the necessary steps to ensure the confidentiality of the information provided by the directors, executives and controllers pursuant to this Code.

25. The Governance and Ethics Committee may consult and receive opinions from outside counsel or experts on any issue it considers appropriate.

26. A director, executive or controller does not violate the provisions of this Code if he has obtained in advance a favorable decision from the Governance and Ethics Committee on the following conditions:

a) the decision was obtained before the facts on which it was based became a reality;

b) the decision was submitted to the Board;

c) all of the relevant facts were fully disclosed to the Governance and Ethics Committee exactly and completely; and

d) the director, executive or controller has complied with all the requirements of the decision.

27. The Governance and Ethics Committee and the competent authority preserve the anonymity of complainants, applicants and informers unless there is a clear intention to do otherwise. They may not be forced to reveal information likely to disclose their identity except if the law or a court so requires.

PENALTIES

28. Upon concluding that a provision of the law, the Regulation or this Code has been violated, the competent authority may impose either of the following penalties:

a) for an executive or a controller: the appropriate penalty, which can extend as far as termination of employment; and

b) for a director: reprimand, suspension without remuneration for a maximum of three months, or removal from the Board.

However, when the competent authority is the Associate Secretary General contemplated by section 20.9, the penalty is imposed by the Secretary General of the Conseil exécutif. If the penalty proposed consists of the removal of a public office holder appointed or designated by the Government, it can only be imposed by the latter; in this case, the Secretary General of the Conseil exécutif may immediately suspend the public office holder without remuneration for a period not exceeding 30 days.

Any penalty imposed on a director and the decision to temporarily relieve him of his duties must be in writing and give the reasons therefor.

29. In the case of a violation of section 10.1, the competent authority records in writing the forfeiture of office of the violator.

30. The director, executive or controller shall render an account and restore to the Company any profits earned or benefits received as a result of or on the occasion of a violation of the provisions of this Code.

31. A director's vote shall not be a casting vote if it is made in violation of the provisions of this Code or associated with such a violation, or if the director fails to produce the attestation contemplated by section 18.

GENERATING, TRANSMISSION AND DISTRIBUTION FACILITIES

GENERATION INSTALLED CAPACITY IN MW

HYDROELECTRIC GENERATING STATIONS — 35,364 MW

Robert-Bourassa	5,616	Outardes-3	1,026	Péribonka	385	Manic-1	184
La Grande-4	2,779	Sainte-Marguerite-3	882	Laforge-2	319	Rapides-des-Îles	176
La Grande-3	2,417	Laforge-1	878	Trenche	302	Chelsea	152
La Grande-2-A	2,106	Bersimis-2	869	La Tuque	294	Sarcelle	150
Beauharnois	1,853	Outardes 4	785	Beaumont	270	La Gabelle	131
Manic-5	1,596	Eastmain-1-A	768	McCormick	235	Première-Chute	131
La Grande-1	1,436	Carillon	753	Rocher-de-Grand-Mère	230	Rapides-Farmer	104
René-Lévesque (Manic-3)	1,285	Toulnustouc	526	Paugan	223	Les Cèdres	103
Jean-Lesage (Manic-2)	1,187	Outardes-2	523	Rapide-Blanc	204	Rapides-des-Quinze	103
Bersimis-1	1,178	Eastmain-1	480	Shawinigan-2	200	Other (19 generating stations rated less than 100 MW)	798
Manic-5-PA	1,064	Brisay	469	Shawinigan-3	194		

THERMAL — 704 MW

Bécancour and Cadillac (gas turbine)	573
Other (24 diesel plants on off-grid systems)	131

HYDROELECTRIC GENERATING STATIONS PLANNED OR UNDER CONSTRUCTION — 1,550 MW

Romaine (4 generating stations)	1,550

INSTALLED CAPACITY OF HYDRO-QUÉBEC'S GENERATING FLEET — 36,068 MW

Hydroelectric (61)[a]	**35,364**
Thermal (26)[b]	**704**

a) 60 operated by Hydro-Québec Production and 1 by Hydro-Québec Distribution.

b) 2 operated by Hydro-Québec Production and 24 by Hydro-Québec Distribution.

OTHER SOURCES OF SUPPLY — 9,226 MW

Churchill Falls generating station (Churchill Falls (Labrador) Corporation Limited)[a]	**5,428**
23 wind farms operated by independent power producers[b]	**2,399**
11 biomass cogeneration facilities operated by independent power producers[c]	**205**
4 small hydropower plants operated by independent power producers[b]	**48**
Other suppliers[d]	**1,146**

a) Hydro-Québec has access to almost all the output until 2041.

b) Hydro-Québec purchases all the output.

c) Hydro-Québec purchases almost all the output.

d) Hydro-Québec has access to the output of these suppliers.

TRANSMISSION

Voltage	Lines (km)	Substations (number)
765 and 735 kV	11,422	39
450 kV DC	1,218	2
315 kV	5,409	67
230 kV	3,197	54
161 kV	2,125	43
120 kV	6,909	218
69 kV or less	3,605[a]	104[b]
Total	**33,885**	**527**

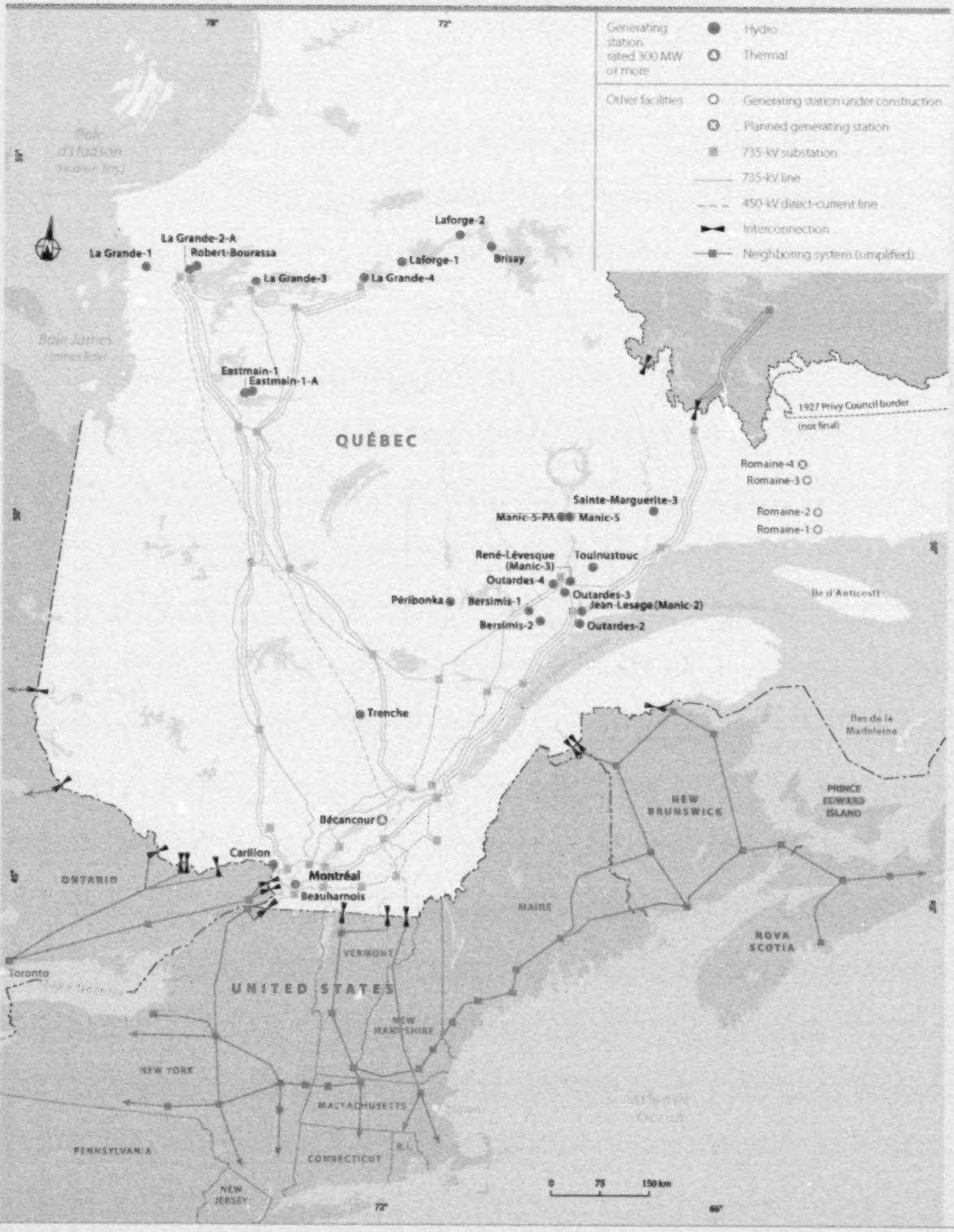
a) 3,333 km of lines operated by Hydro-Québec TransÉnergie and 272 km by Hydro-Québec Distribution.

b) 93 substations operated by Hydro-Québec TransÉnergie and 11 by Hydro-Québec Distribution.

DISTRIBUTION

Voltage	Lines (km)
34 kV	735
25 kV	108,950
12 kV	4,902
4 kV or less	256
Total	**114,843**

MAJOR FACILITIES



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UNITS OF MEASURE

¢/kWh	cents ($0.01) per kilowatthour
$M	millions of dollars
$B	billions of dollars
V	volt (a unit for measuring voltage)
kV	kilovolt (one thousand volts)
MVA	megavoltampere or one million voltamperes (voltampere: a unit for measuring apparent power)
W	watt (a unit for measuring power)
kW	kilowatt (one thousand watts)
MW	megawatt (one million watts)
GW	gigawatt (one billion watts)
Wh	watthour (a unit for measuring electric energy)
kWh	kilowatthour (one thousand watthours)
MWh	megawatthour (one million watthours)
GWh	gigawatthour (one billion watthours)
TWh	terawatthour (one trillion watthours)
km	kilometre
MMBtu	million Btu (British thermal units)
t	tonne (metric ton)
t CO_2 eq.	tonnes of CO_2 equivalent

Hydro-Québec wishes to thank all the employees and suppliers whose photos appear in this Annual Report.

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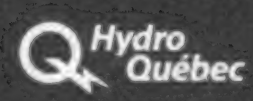
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